THE AE CLEARINGHOUSE 454 WEST BELDEN AVENUE CHICAGO, IL 60614-3816 773-281-9106 773-281-7650 FAX MEMORANDUM

Monday, February 7, 2005

To: Division of Clearing and Intermediary Oversight

Three Lafayette Center 1155 21st Street, N.W. Washington, D.C. 20581

Re: Application to register The AE Clearinghouse as a DCO pursuant to Section 5b of the Commodity Exchange Act

To the DCIO:

Enclosed please find a formal application from The AE Clearinghouse, LLC ("AE Clearinghouse") to the Commodity Futures Trading Commission (the "Commission") for registration as a derivatives clearing organization (a "DCO") pursuant to Section 5b of the Commodity Exchange Act (the "CEA").

The AE Clearinghouse respectfully requests that the Commission issue an order granting The AE Clearinghouse registration as a DCO, restricted to providing clearing services to certain types of qualified eligible contract participants (ECPs), engaged in trading either:

- a. OTC contracts, defined by the CEA as excluded derivatives transactions; or
- exempt board of trade contracts, at The Actuarials Exchange,

where all such contracts are cash-settled, and deemed by the CFTC to be "eligible" excluded commodities, under CFTC Rule 36.2(a).

Under Part 39 of the CFTC's rules, an application for registration as a DCO should include:

- A statement that the applicant is applying to become a registered DCO and that the application is being submitted pursuant to Part 39 (as shown in the paragraphs above);
- A representation that the applicant will operate in accordance with the definition of DCO contained in Section 1a(9) of the CEA (as represented in the text below);
- A copy of the applicant's rules (as provided in enumerated Exhibits);

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- An explanation, if not self-evident, as to how the rules satisfy each of the 14 Core Principles (as provided in the main body of this DCO application);
- Agreements entered into or to be entered into between or among the applicant, its operator or its participants (as provided in enumerated Exhibits);
- Descriptions of relevant system test procedures, tests conducted or test results (as provided in enumerated Exhibits);
- Names and telephone numbers or email addresses of persons the CFTC may contact regarding the application (as provided below); and
- Any requests for confidential treatment of any part of the application. Such requests should specifically identify such parts and include a reasonable justification for each (the entirety of the application and EXHIBITS are requested for such confidential treatment as provided in an accompanying Letter).

Under Part 39 of the CFTC's rules, an applicant clearing organization will be automatically registered as a DCO 60 days after the Commission formally receives the application, provided that the applicant demonstrates that it complies with the 14 Core Principles.

The AE Clearinghouse emphasizes that official application is no longer a draft for preliminary review.

The officers of The AE Clearinghouse are ready to respond to any of your requests for additional demonstrations of compliance with the Core principles during the forthcoming period of 60 days.

Sincerely,

<signed>

Holly Davies (nee Arney) EVP of The AE Clearinghouse 773-281-9106

<signed>

John McPartland EVP of The AE Clearinghouse 773-281-9106

ENCLOSURES: Three Sets of The AE Clearinghouse DCO Application for Registration with All Embedded Figures and Supporting Exhibits

SUPPORTING TABLE:

TABLE 1:

"How the AE Clearinghouse Intermark Price Limit is Calculated"

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SOME *** MATERIAL COVERED UNDER FOIA CONFIDENTIAL TREATMENT REQUESTED BY The AE Clearinghouse Under CFTC Reg. 145.9

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SUPPORTING EMBEDDED FIGURES:

FIGURE 1:

AE Clearinghouse

"Clearing for Eligible Contract Participants Only"

FIGURE 2:

Traditional Clearinghouse

"In-Possession Capital Coverage for

Tail Events During Default"

FIGURE 3:

AE Clearinghouse

"In-Possession Capital Coverage for

Tail Events During Default"

FIGURE 4:

AE Clearinghouse

"In-Possession Capital Coverage for

Cleared FRA Tail Events During Default"

FIGURE 5:

AE Clearinghouse

"In-Possession Capital Coverage for

Cleared FRA Tail Events During Default"

SUPPORTING EXHIBITS:

(MATERIAL COVERED UNDER FOIA CONFIDENTIAL TREATMENT REQUESTED BY The AE Clearinghouse Under CFTC Reg. 145.9 followed by ***)

EXHIBIT 01

- (a) Articles of Organization for The Actuarials Exchange
- (b) Operating Agreement for The Actuarials Exchange (IL LLC Law)
- (c) Notice of Operation as an Exempt Board of Trade
- (d) Acknowledgement Letter to AE from CFTC of Notice of Operation
- (e) Confidential Financial Statement of The Actuarials Exchange ***

EXHIBIT 02

- (a) Articles of Organization for The AE Clearinghouse
- (b) Operating Agreement for The AE Clearinghouse

EXHIBIT 03

(a) AE Risk Pool Membership Documents

EXHIBIT 04

(a) AE Risk Pool Quartet

EXHIBIT 05

- (a) AE Circulars ***
- (b) Example of Mark Report ***

EXHIBIT 06

- (a) AE Risk Pool Financial Resources Document ***
- -- (continued to next page) --

SOME *** MATERIAL COVERED UNDER FOIA CONFIDENTIAL TREATMENT REQUESTED BY The AE Clearinghouse Under CFTC Reg. 145.9

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(b) Safeguards of The AE Clearinghouse ***

EXHIBIT 07

(a) Management and Staff Positions ***

EXHIBIT 08

(a) Market Risk Management Illustration ***

EXHIBIT 09

(a) Irrevocable Letter of Credit Template

EXHIBIT 10

- (a) AE Risk Pool Recourse Illustration ***
- (b) AE Risk Pool ChapBook ***

EXHIBIT 11

- (a) Savvis Master Service Agreement ***
- (b) BoNY Master Service Agreement ***

EXHIBIT 12

(a) Technology Overview Presentation ***

EXHIBIT 13

- (a) The AE Clearinghouse Disaster Recovery Plan ***
- (b) Savvis Disaster Recovery Plan ***

EXHIBIT 14

(a) Off-Exchange Clearing Brochure ***

EXHIBIT 15

(a) Spreadsheets of Clearing Simulation ***

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CORE PRINCIPLE A:

GENERAL COMPLIANCE WITH THE 14 CORE PRINCIPLES

IN GENERAL-- To be registered and to maintain registration as a derivatives clearing organization, an applicant shall demonstrate to the Commission that the applicant complies with the Core principles specified in this paragraph. The applicant shall have reasonable discretion in establishing the manner in which it complies with the Core Principles.

An entity preparing to submit to the Commission an application to operate as a derivatives clearing organization is encouraged to contact Commission staff for guidance and assistance in preparing its application. Applicants may submit a draft application for review prior to the submission of an actual application without triggering the application review procedures of Sec. 39.3 of the Commission's regulations. The Commission also may require a derivatives clearing organization to demonstrate to the Commission that it is operating in compliance with one or more Core Principles.

The AE Clearinghouse, LLC

The AE Clearinghouse, LLC, ("The AE Clearinghouse") is an Illinois LLC organized on December 10, 2004, whose sole member and manager is The Actuarials Exchange, LLC. (Articles of Organization) (Operating Agreement)

Documents regarding the governance structure of The AE Clearinghouse are available to CFTC staff to review as per EXHIBIT 01.

The Actuarials Exchange, LLC

The Actuarials Exchange, LLC ("AE") is an Illinois Limited Liability Corporation organized in January 2000. (Articles of Organization) (Operating Agreement as LLC Law)

All of the investors and member equity holders of AE are private individuals or small entities that are not otherwise engaged in activities regulated by the Commission.

The CFTC first acknowledged receipt from AE of a Notice to Operate as an Exempt Board of Trade in January 2004. (Notice of Operation) (Acknowledgement Letter)

Documents regarding the governance structure of The Actuarials Exchange are available to CFTC staff to review as per EXHIBIT 02.

Application for DCO Registration of The AE Clearinghouse

The AE Clearinghouse respectfully requests that the Commission issue an order granting The AE Clearinghouse registration as a DCO, restricted to providing clearing services to certain types of qualified eligible contract participants (ECPs), engaged in trading either:

- a. OTC contracts, defined by the CEA as excluded derivatives transactions; or
- exempt board of trade contracts, at The Actuarials Exchange,

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where all such contracts are cash-settled, and deemed by the CFTC to be "eligible" excluded commodities, under CFTC Rule 36.2.

The AE Clearinghouse asks that it be further directed by the CFTC (as part of its registration order) to limit its clearing services to the above parameters, until The AE Clearinghouse applies for, and receives, an enabling order to expand its clearing services accordingly.

In addition, The AE Clearinghouse shall remain in compliance with the Core Principles set forth in Section 5b of the Act, and fulfill each of the various representations made in connection with its application to the Commission for DCO registration.

Finally, The AE Clearinghouse shall inform the Commission immediately of any information regarding any event, circumstance, or situation concerning any of its operations as a DCO that detracts from its ability to continue complying with any of the Core Principles set forth in Section 5b of the Act as demonstrated in its application materials submitted to the Commission for DCO registration.

Section 5b(b) of the CEA permits a DCO for OTC derivatives transactions that are excluded or exempt from regulation under the CEA, pursuant to certain provisions thereof to register as such with the Commission. Also, the CFTC has determined that contracts that are executed on an exempt board of trade that are subsequently cleared are required to be cleared at a DCO.

Governance Structure of The AE Clearinghouse

The governance structure of The AE Clearinghouse clearing is as follows:

- 1. The AE Clearinghouse Operating Agreement governs The AE Clearinghouse as an Illinois Limited Liability Corporation.
- 2. The AE Risk Pool Rules are a Quartet of legally-binding documents for AE, The AE Clearinghouse, and Member Firms of the AE Risk
- 3. Within the AE Risk Pool Rules, The AE Clearinghouse Terms, Conditions, and Procedures determine how The AE Clearinghouse is to perform the clearing function for the AE Risk Pool.

The AE Risk Pool Rules

The AE Risk Pool Rules are a Quartet of legally-binding documents, comprised of:

- The AE Rules (pertaining to exempt board of trade activity) (AE Rules)
- 2. The AE Clearinghouse Terms, Conditions, and Procedures; (pertaining to clearing for the AE Risk Pool)(sometimes abbreviated as AE TCP); (AE TCP)

^{-- (}continued to next page) --

- The Rules of Products and Electronic Services, otherwise known as ROPES; (ROPES)
- The OmniGlossary of Definitions pertaining to the Quartet. (OmniGlossary)

The rationale for dividing the AE Risk Pool Rules into separate documents is due to the fact that an exempt board of trade is probably not eligible to serve as a Self-Regulatory Organization (SRO) under the CEA. In contrast, a registered Derivatives Clearing Organization may be eligible to be an SRO.

Rather than mix the two, The Actuarials Exchange and The AE Clearinghouse represent a separation of the unregulated exempt board of trade and regulated clearinghouse into two distinct entities.

The AE Risk Pool

The AE Clearinghouse provides clearing services to Member Firms whose assets and liabilities comprise the AE Risk Pool. The assets of the AE Risk Pool are held in custody at various physical bank accounts at The AE Clearinghouse payment bank, which are used to satisfy Contract marketspace obligations of the Member Firms. (A Contract marketspace is defined in The AE Risk Pool Rules as where the rights, obligations, and open interest of Member Firms for specific delivery specifications of unique products reside at The AE Clearinghouse.)

The AE Clearinghouse initially expects to provide clearing services for spot, forward and derivatives contracts for interest rates, including Forward Rate Agreements, which, upon Member Firm election of clearing, are referred to in the AE Risk Pool Rules as Cleared FRAs. (RoPES Chap. 5)

The AE Clearinghouse may determine in the future to clear a broader range of Contracts for the AE Risk Pool, such as those relating to interest rates, foreign exchange rates, credit risks, broad macroeconomic indexes, or other such "eligible" excluded commodities, as defined in Section 1a(13) of the CEA, and as further determined by the CFTC under Rule 36.2.

Member Firms participating in the AE Risk Pool will solely consist of certain qualified eligible contract participants ("ECPs") as defined in Section 1a(12) of the CEA, which may include large financial institutions, insurance companies, investment companies, commodity pools, employee benefit plans, government-sponsored enterprises, sovereign governments (or any instrumentality, agency or departments thereof), political subdivisions, broker/dealers or corporations, partnerships, proprietorships, organizations, trusts, or persons, having net assets exceeding \$10 million, and as further qualified by the AE Rules. (AE Rules, Art. II, Sec. 3)

The relevant documents regarding the governing of AE Risk Pool are available to CFTC staff to review as per EXHIBIT 06.

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AE CLEARINGHOUSE Clearing for Eligible Contract Participants Only

Exempt Board of Trade

Solely servicing ECPs transacting "eligible" excluded commodities

THE **ACTUARIALS EXCHANGE**

DCO Applicant

Solely servicing ECPs transacting "eligible" excluded commodities on a bilateral EDT basis or a multilateral EBOT basis

THEAE **CLEARINGHOUSE**

WHOLLY-OWNED SUBSIDIARY of Actuarials Exchange, LLC providing clearing services for The AE Risk Pool under a Service Agreement EDT = Excluded Derivatives Transaction EBOT = Exempt Board of Trade ECPs = Eligible Contract Participants

Member Firms

All ECPs, must have \$500 million in net assets and investment-grade credit ratings

Member Firm (Major US Bank)

Acme

PRINCIPAL/INTERMEDIARY AE Rules Article II Sec. 3(i)(1)

> CFMA Title I Sec. 101.12(A)(B)

Trading Accounts

Collective

Customer

House

2

Specific

Customer

(Insurance Co.)

Sec. 3(i)(10) Sec. 101.12(B) (1)Collective Customer

Certa

Member Firm

(Insurance Co.)

PRINCIPAL ONLY AE Rules Article II Sec. 3(i)(2) CFMA Title I Sec. 101.12(A) **Trading Account** 1

House

Zwan Member Firm

(Broker/Dealer) PRINCIPAL/INTERMEDIARY

AE Rules Article II Sec. 3(i)(8) CFMA Title I Sec. 101.12(A)(B) **Trading Accounts** 2

Specific House House

Customer (Investment Co.)

Trading Accounts

All ECPs, with at least \$10 million in net assets **Trading Accounts** Specific Customer

BeeCo

Member Firm

(FCM)

INTERMEDIARY ONLY

AE Rules Article II

(Commodity Pool)

Clearing Functions of The AE Clearinghouse

The CEA, as amended by the CFMA, defines a derivatives clearing organization as a "clearinghouse, clearing association, clearing corporation, or similar entity, facility, system, or organization that, with respect to an agreement, contract, or transaction --

- (i) enables each party to the agreement, contract, or transaction to substitute, through novation or otherwise, the credit of the derivatives clearing organization for the credit of the parties; [called "novation" in this memorandum], [or]
- (ii) arranges or provides, on a multilateral basis, for the settlement or netting of obligations resulting from such agreements, contracts, or transactions executed by participants in the derivatives clearing organization; ["netting" in this memorandum], or
- (iii) otherwise provides clearing services or arrangements that mutualize or transfer among participants in the derivatives clearing organization the credit risk arising from such agreements, contracts, or transactions executed by the participants ["mutualization" in this memorandum].

Although historically most clearinghouses regulated by the CFTC have provided all-in-one (novation, netting, mutualization) settlement services to market participants, the CEA clearly allows a DCO to engage in any acceptable combination of the three enumerated clearing functions.

For example, a central counterparty providing the clearing function of novation of risks (subsection i) can, but is not required to, arrange for mutualization (subsection iii) of those same risks, for market participants.

The financial resources of every DCO are ultimately finite. Almost every clearinghouse acknowledges a limited call on possessed and retrievable assets that can be applied to meet the selected combination of clearing functions [novation, netting, mutualization] offered to market participants. Those possessed and retrievable assets are overwhelmingly comprised of contributions by Member Firms, to support performance collateral requirements, default protections, or clearing fund requirements.

Under the Core Principles, a DCO must demonstrate adequate financial resources to support the selected combination of clearing functions (novation, netting, mutualization) offered to market participants, where the perfected interest, size, availability, and accessibility of those financial resources to support such a combination is of paramount importance.

The AE Clearinghouse will be providing traditional novation and netting services to Member Firms of the AE Risk Pool. The AE Clearinghouse will NOT be providing traditional mutualization services to the Member Firms. (Under an unlikely "six sigma" event of force-settlement, The AE Clearinghouse does provide for certain levels of nonperformance risk to -- (continued to next page) --

be distributed among Member Firms in a particular way, as discussed later in this application.)

Clearinghouse Novation As A Credit Enhancement to the AE Risk Pool

The AE Clearinghouse will act as a central counterparty to contracts submitted by Member Firms to be cleared, thereby permitting each Member Firm to substitute, via traditional novation, the clearinghouse for the respective Member Firms. (AE TCP, Art. IV, Sec. 9)

Novation by The AE Clearinghouse provides a special credit enhancement to Member Firms by facilitating a reduction of credit exposure to an original counterparty, by substituting the performance of The AE Clearinghouse for that of the counterparty.

By way of simple example, Acme and BeeCo are two eligible contract participants, and Acme has \$90 million in "credit allotment" already encumbered by a 95% daily value-at-risk calculation for existing OTC FRA trades. (This means that if the FRA market moved adversely against BeeCo beyond this 95% daily VaR threshold, and, at the same time, BeeCo defaulted, Acme would NOT be paid \$90 million plus in owed profits.)

FRAs are standardized, low profit margin OTC instruments, which take up disproportionate amounts of credit allotment among eligible contract participants who trade interest rates. The "spread" of bids and asks in FRAs can be as tight as 1 basis point or less. All things being equal, these ECPs would rather have less standardized and high profit margin OTC instruments comprise a majority of their finite credit allotment to another counterparty.

Acme cannot economically justify carrying a position with \$90 million in FRA performance risk to BeeCo, while earning only 1 basis point in performing returns.

Acme's FRA performance risk to BeeCo limits remaining trades to \$10 million, because the total credit allotment is \$100 million. This obviously constrains Acme traders, who would, with a "clean sheet" of credit allotment open up higher volumes of high profit margin trades with BeeCo. (BeeCo traders may be similarly constrained when adding new OTC trades with Acme.)

Novation by The AE Clearinghouse for these FRA trades removes the performance risk of Acme from BeeCo, and that of BeeCo from Acme. To substitute The AE Clearinghouse for the original counterparty, Acme and BeeCo would each submit a series of FRAs for which they desire clearinghouse novation. Upon clearinghouse acceptance of those FRAs, the two counterparties would then "unwind" or terminate their old open positions with each other.

If all \$90 million in FRA VaR is novated, Acme suddenly has a total of \$100 million in "credit allotment" available, and can bilaterally execute OTC deals of greater size and high profit margins with BeeCo. The "spread" of bids and asks in these new OTC deals can be many times

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larger than that for FRAs. For example, some eligible excluded commodities have a current "spread" 20 basis points or more.

Even when assuming that Acme's performance collateral to fund FRA novation at The AE Clearinghouse is 9 basis points more expensive than the cost of capital for the FRA position with BeeCo, Acme has earned 11 basis points with BeeCo that it otherwise would not be earning without novation. (Market Risk Illustration Ex. 8a)

Volumes of standard, low profit margin OTC FRAs have recently exploded among ECPs who are also engaged in proliferating a number of structured, high profit margin OTC instruments.

With novation, The AE Clearinghouse is meeting the financial needs of these ECPs, by helping them better allocate their finite credit allotments away from standard, low profit margin OTC FRAs (by making them cleared FRAs and swaps), and re-deploying such freed-up credit allotments towards structured, high margin OTC instruments.

Clearinghouse Netting As A Credit Enhancement to the AE Risk Pool

The AE Clearinghouse will provide basic netting services for contracts submitted by Member Firms to be cleared.

Netting by The AE Clearinghouse provides a special credit enhancement to Member Firms by facilitating a reduction of risk exposure for open positions, by offsetting the upside performance of one kind of contract for the downside of another contract.

By way of simple example, Acme, BeeCo, and Certa are three eligible contract participants, and Acme has \$90 million in 95% daily value-atrisk in long FRA positions against BeeCo, and in perfectly offsetting short FRA positions against Certa. Any interest rate move up or down will thus result in zero change in Acme market value in FRAs.

But Acme's "zero-cost" market-neutral position is filled with credit performance risk. For example, if the interest rate moves up to the 95% VaR level, Acme is obligated to pay Certa the sum of \$90 million for the short position loss. But Acme expects to be paid by BeeCo the sum of \$90 million for the long position gain. What if BeeCo does not pay?

At The AE Clearinghouse, the long or short positions that "net out" are for financial instruments with identical delivery specifications of unique contract specifications. For example, a long FRA that expires on January 4, 2006 can be offset against a short for that same date. With clearinghouse novation and netting of OTC FRAs, the combined \$180 million in Acme capital tie-ups against BeeCo default and Certa default can be easily eliminated.

If The AE Clearinghouse novates the Acme long and short positions away from BeeCo and Certa, Acme can substitute the performance of The AE Clearinghouse for that of both counterparties. More importantly, Acme can "net out" the simultaneously offsetting long and short positions at

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The AE Clearinghouse against each other, close out the open interest in FRAs, and "free up" the performance collateral associated with the two offsetting positions, eliminating all of the performance risk to Acme.

With netting, The AE Clearinghouse is meeting the financial needs of these ECPs, by again helping them devote their finite "credit allotments" away from standard, low profit margin OTC FRAs (by making them cleared and offset FRAs and swaps), and re-deploying such freed-up credit allotments towards structured, high margin OTC instruments.

This netting can take place by submitting trades to a trade facility like The Actuarials Exchange (called "on-exchange"), or by submitting trades to the clearinghouse (called "off-exchange"). (RoPES, Chap. 6)

A Note on De-Mutualized Clearing

For decades, traditional clearinghouses have required Member Firms to contribute equally to a Clearing Fund that would "bail out" the non-performing positions of a defaulting Member Firm, under a "mutualization of risk model."

Mutualization of risk results in a poor utilization of Member Firm capital at the traditional clearinghouse. First and foremost, Member Firms have different sizes of overall open interest at that clearinghouse, some higher, and some lower, than others. As a result, certain Member Firms often contribute more capital towards the mutualization of a clearinghouse than may be otherwise justified by their relative size of open interest. The capital "floor" of Member Firm participation, that is, the minimum amount of required mutualized contribution to the traditional clearinghouse, is sometimes set too high.

Second, Member Firms who wish to clear elevated levels of overall open interest often have not contributed enough capital towards the mutualization of a clearinghouse. The traditional clearinghouse then prevents the Member Firm from clearing at these elevated levels. Thus the capital "ceiling" of Member Firm open interest allowed at the traditional clearinghouse is sometimes set too low.

Third, ECPs who trade OTC FRAs and other interest rate instruments have learned how to be more flexible with their credit and collateral arrangements, "right-sizing" their daily levels of fluctuating open interest with daily changes in capital protections. Many traditional clearinghouses are now learning that their rigid mutualization structures do not facilitate the "right-sizing" of fluctuating open interest with daily changes in capital protections.

As discussed later in this application, a de-mutualized clearinghouse like The AE Clearinghouse provides an opportunity to use the secure methods of novation and netting of outstanding positions on a "right-sized" basis, thereby creating a capital utilization enhancement to Member Firms.

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Broadly speaking, The AE Clearinghouse will provide novation and netting clearing functions to Member Firms on an unlimited "debit card" basis - that is, on an unlimited basis when Member Firms have already pre-provided collateral to fund their open positions, and to fund a Default Protection Facility guaranteeing their own performance to Member Firms in Good Standing in case of their own default. This is in contrast to most traditional clearinghouses, where risks are mutualized on a limited "credit card" basis.

Demonstration of Compliance with Core Principles

With respect to the application of registration, a clearing organization must demonstrate that it complies with the fourteen Core principles set forth in Section 5b(c) of the CEA, relating to: (A) general compliance, (B) sufficient financial, operational, and managerial resources, (C) participant and product eligibility, (D) risk management, (E) settlement procedures, (F) treatment of funds, (G) default rules and procedures, (H) rule enforcement, (I) system safeguards, (J) reporting, (K) record-keeping, (L) public information, (M) information sharing and (N) antitrust considerations.

The following discussion and the supporting documentation in the attached appendices demonstrate that The AE Clearinghouse satisfies each of the Core principles required under Section 5b(c)(2) of the CEA for registration as a DCO.

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CORE PRINCIPLE B:

SUFFICIENT FINANCIAL, OPERATIONAL, AND MANAGERIAL RESOURCES ***

From the CFTC Appendix A to Part 39: In addressing Core Principle B, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. The resources dedicated to supporting the clearing function:

- a. The level of resources available to the clearing organization and the sufficiency of those resources to assure that no material adverse break in clearing operations will occur in a variety of market conditions; and
- b. The level of member/participant default such resources could support as demonstrated through use of hypothetical default scenarios that explain assumptions and variables factored into the illustrations.

2. The nature of resources dedicated to supporting the clearing function:

- a. The type of the resources, including their liquidity, and how they could be accessed and applied by the clearing organization promptly;
- b. How financial and other material information will be updated and reported to members, the public, if and when appropriate, and to the Commission on an ongoing basis; and
- c. Any legal or operational impediments or conditions to access.

The AE Clearinghouse Management and Staff

Executive management authority at The AE Clearinghouse includes an Executive Vice President acting as a Chief Risk Officer, and an Executive Vice President acting as Chief Compliance Officer. The AE Clearinghouse represents that the roles of executive management will number at least 2 at inception of DCO registration, with sufficient DCO experience to implement the Core Principles.

A document listing the present management and staff positions of The AE Clearinghouse is available to CFTC staff to review as per EXHIBIT 10.

AE Clearinghouse Administration

Executive management authority at The AE Clearinghouse includes an Executive Vice President acting as a Chief Risk Officer, and an Executive Vice President acting as Chief Compliance Officer. The AE Clearinghouse represents that the roles of executive management will number at least 2 at inception of DCO registration, with sufficient DCO experience to implement the Core Principles.

The AE Clearinghouse represents to the Commission that before undertaking active clearing, and at the beginning of every calendar month thereafter, The AE Clearinghouse will have sufficient financial resources to perform the required administrative capability to continue clearing for at least six months forward, before undertaking new clearing activity, or else engage in a complete liquidation of clearinghouse open interest within three months. (TCP Art. IV, Sec. 21)

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Operational Resources Supporting The Clearing Function

Physical Plant and Transfer Services

The AE Clearinghouse has secured office space and facilities in the Chicago offices of The Actuarials Exchange, which is believed to satisfy all of the requirements of the Core principles for the application of the restricted registration. The AE Clearinghouse may secure additional office space and facilities in Chicago, New York, or London as required.

Since 2002, the Bank of New York has generously provided valuable expertise and services to The Actuarials Exchange in order to facilitate Bank of New York services to the AE Risk Pool.

To that end, The AE Clearinghouse clearing officers have already participated in a modern FedWire payments system with the Bank of New York under the Cash Register Plus program, which produces a detailed record of all cash transactions to and from Member Firms. (In Fall 2004, officials of The AE Clearinghouse successfully transferred moneys as a mock-clearing exercise of the Cash Register Plus program.)

STP Technology Facility

On this STP technology facility, real-time financial resource tracking of The AE Clearinghouse has been fully integrated with real-time operational command and control and real-time managerial oversight.

The AE Clearinghouse presently has the financial, operational, and managerial infrastructure to perform, for each Trading Account of each Member Firm:

- 1. Automated real-time or on-call audits of account balances;
- 2. Automated real-time or on-call checks that pre-provided collaterals are sufficient for establishing initial margins to clear every submitted order;
- Automated real-time or on-call tracking of open positions for any Contract;
- 4. Automated real-time or on-call reports of unrealized and realized profit/loss;
- 5. Automated real-time or on-call draws of immediate variation margins for unrealized or realized losses;
- 6. Automated real-time or on-call margin calls for funds when account balances are insufficient;
- 7. Automated scheduled mark-to-markets to settle open positions on an intraday and end-of-day basis, or manually triggered by operational personnel on an on-call basis. (Chapbook "Risk Management of the Electronic Tracker" Ex. 10b) (AE TCP Art. IV)

The real-time capabilities of the STP Technology Facility "push" information out to an end-user without requiring any request from that end-user. The on-call capabilities of the STP Technology Facility

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"pull" information out to an end-user only when receiving a request from that end-user.

The STP Technology Facility may be connected to an excluded or exempt electronic trading facility, as defined in Section 2e or Section 2h of the CEA, whose trades, upon election, are subsequently cleared by The AE Clearinghouse as a DCO, or, connected to an exempt board of trade, as defined in Section 5d of the CEA, whose trades are subsequently cleared by The AE Clearinghouse as a DCO.

The AE Clearinghouse as a DCO will ensure that any such excluded or exempt electronic trading facility serving an exempt commercial market or exempt board of trade has fully complied with all CEA and CFTC regulations before commencing clearing for trades matched on such a facility. (To that end, The Actuarials Exchange has filed a copy of its Notice to Operate as an Exempt Board of Trade, and a copy of the acknowledgement letter from the CFTC, with The AE Clearinghouse, for such verification purposes.)

The STP Technology Facility is fully tested and operationally available for The AE Clearinghouse to clear instruments of AE Risk Pool, as of November 2004.

Financial Resources Supporting The Clearing Function

The AE Clearinghouse will ensure that the DCO will have sufficient financial resources to operate a risk pool for certain qualified eligible contract participants (ECPs) trading "eligible" excluded commodities and excluded derivatives transactions, in full accordance with all of the applicable Core Principles.

The principal financial resources supporting The AE Clearinghouse for AE Risk Pool clearing activities will require each Member Firm, of a minimum pool of five Member Firms, to furnish, for each traded Contract to be cleared:

- 1. <u>Initial Margin</u>. Furnish The AE Risk Pool with initial margin, pre-provided in the form of USD cash that are checked upon submission of a trade order for clearing. (AE TCP, Art. IV, Sec. 16)
- 2. <u>Variation Margin</u>. Furnish AE Risk Pool with sufficient variation margin in the form of USD cash for any changes in the value of open positions, paid in real-time, or, on an exceptions basis, upon a scheduled intraday or end-of-day "mark" as the basis of settlement. (AE TCP, Art. IV, Sec. 16)

Unused performance collateral is risk capital that has been deposited by the Member Firms, but not yet encumbered as performance collateral for open positions at the clearinghouse. In AE Risk Pool documents, encumbered performance collateral plus unencumbered performance collateral is called "Total Risk Capital." (Total Risk Capital is the total account balance under the possession and control of the clearinghouse and thus available to margin trades in a Trading

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Account.) (AE TCP Art. IV) (Market Risk Management Ex. 8a) (Chapbook "The Recourse" Ex. 10a, 10b)

Unlike some other clearing organizations, all AE performance collateral is sequestered under the possession and control of The AE Clearinghouse before orders are even allowed to enter the order book. (RoPES, Chap. 3) (AE TCP Art. IV) (Market Risk Management Ex. 8a) (Chapbook "The Recourse" Ex. 10a, 10b)

Taken together, performance collateral held to satisfy initial margin requirements and any unencumbered collateral under the possession and control of the clearinghouse (called "Total Risk Capital") constitutes a prudentially structured "first layer" of financial resources that allows The AE Clearinghouse to appropriately discharge its responsibilities when providing traditional novation. (This first layer of financial resources is referred to as "Total Risk Capital" in AE Risk Pool documents.)

Although by policy The AE Risk Pool accepts only USD cash for Trading Accounts, The AE Risk Pool Rules provide that, with appropriate haircuts, USD cash and US Treasuries may be acceptable forms of collateral.

3. Default Protection Facility. Furnish AE Risk Pool with sufficient financial assets (any combination of: Unified Clearing Group (UCG) irrevocable letters of credit drawable on a same-day basis from approved banks, USD cash or US Treasuries) whose haircutted collateral value is no less than 3x (presently set by policy at 4x) the sum of the initial margin requirement for all open positions of the Member Firm.

The Default Protection Facility constitutes a prudentially structured "second first layer" of financial resources that allows The AE Clearinghouse to appropriately discharge its responsibilities when providing traditional clearing function of novation.

The USD cash and US Treasuries must be deposited at a special Keepsafe bank account of The AE Clearinghouse, to be considered part of a Member Firm's Default Protection Facility.

As discussed elsewhere in this application, The AE Clearinghouse will establish an intraday price limit for every instrument that will always be 95% or less than the exposure coverage provided by the sum of required initial margin and required Default Protection Facility. Absent an event where The AE Clearinghouse somehow fails to enforce its own "intermark" clearing price limits, The AE Clearinghouse will always have sufficient financial resources to support its clearinghouse obligations, as set forth in its rules, shown by way of example in Table 1.

4. <u>General Clearing Fund.</u> The General Clearing Fund is defined as all retained earnings of the AE Clearinghouse derived from either clearing fees or interest collected on performance collateral under the possession and control of The AE Clearinghouse for the AE Risk Pool, in excess of a prudential level that would fund all

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Table 1

How The AE Clearinghouse "Intermark" Price Limit Is Calculated

Defined Term

42.5 Initial Margins

bps Required Minimum or other units

Calc'd

170 **Default Protection Facility**

bps Required Minimum or other units

Calc'd

201.875 "Intermark" Price Limit

bps Required Maximum or other units

Defined as ...

Performance Bond for each Contract marketspace

Defined as ...

Assets of Member Firm providing protection against default beyond that of the Performance Bond

Defined as ...

The limit up or limit down price beyond the last mark whose margin requirements have been fully satisfied

AEC Policy

May be set at either:

1) Maximum move x 1.25 of historical distribution over last 7 years or, iff provided in the RoPES for that financial instrument, at 2) 95% VaR of historical distribution over last 7 years

May not be set below:

3x the initial margins for any financial instrument (Presently set by policy at 4x initial margins)

May not exceed:

95% of the sum of initial margins + proceeds from Default Protection Facility

operational requirements of The AE Clearinghouse for the next 180 days. (AE TCP, Art. IV, Sec. 9(iii))

The General Clearing Fund constitutes a "third layer" of financial resources that allows the The AE Clearinghouse to appropriately discharge its responsibilities when providing traditional clearing by novation for the AE Risk Pool. The surplus retained earnings constituting the General Clearing Fund will either be held in cash or invested in US Treasury securities. (AE TCP, Art. IV, Sec. 16)

Potential Additional Financial Resources: In the AE Risk Pool, there may be an additional layer of default insurance that may in the future be purchased from the surplus clearing or administration fees of the risk pool, or purchased by the Member Firms acting in concert on behalf of the AE Risk Pool. Also, The AE Clearinghouse may charge Member Firms for extraordinary expenses incurred by The AE Clearinghouse that are directly attributable to those Member Firms.

Derivatives, like options or payout functions, whose guaranteed non-negative value upon a contingent event would likely offset a prospective shortfall in Member Firm performance collateral, may in the future be purchased from the surplus retained earnings of the AE Risk Pool as a form of supplemental market or credit protection.

There also may be capital contributions of Member Firms to the equity of The AE Clearinghouse.

Accessibility of Financial Resources: The financial resources for the first layer, namely initial margins, variation margins, and unused risk capital, are restricted to in USD cash deposited directly to the Clearinghouse Concentration bank account of The AE Clearinghouse.

Those for the second layer, namely The Default Protection Facility, must be comprised of any combination of the following:

- a) Letters of credit: Unified Clearing Group irrevocable letters of credit from banks that are rated AA or better by Moody's, negotiable for immediate same-day funds of USD cash equal to the face value of the LoC;
- b) USD cash or US Treasuries under the possession and control of The AE Clearinghouse, or;

The surplus retained earnings constituting the General Clearing Fund will either be held in cash or invested in US Treasury securities. (AE TCP, Art. IV, Sec. 16)

All of these safeguards collectively ensure that the financial resources required by The AE Clearinghouse to satisfy AE Risk Pool obligations under the AE Risk Pool Rules are readily available to the AE Clearinghouse to meet its financial obligations under a variety of market conditions.

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Liquidity of Financial Resources: The AE Clearinghouse remits USD cash and US Treasuries to Member Firms two days after receiving a withdrawal request to do so from the Member Firms. The AE Clearinghouse is thereby isolated from the same-day liquidity requirements faced by other clearing organizations that are obligated to pay clearing participants variation margin as part of the same clearing cycle in which it was collected from other clearing participants. Thus, from the perspective of meeting obligations to Member Firm payment banks, The AE Clearinghouse has no need for a same-day liquidity facility.

Such a "two day wait" -- called T+2 in the OTC markets -- also allows Member Firms to coordinate payment netting of matched positions between cleared interest-rate derivatives and non-cleared interest rate derivatives on a synchronized T+2 day basis. (AE TCP, Art. IV, Sec. 11, 2b, also Sec. 12, 3) (Chapbook "Bank Processing Procedures")

Adequacy of Financial Resources for Clearing: In the AE Risk Pool, the financial resources are deemed to be sufficient, assuming that a minimum of five and a maximum of twenty eligible contract participants join as Member Firms, with a balanced composition that includes banks, brokerages, financial institutions, government bodies, and other OTC derivatives dealers. (If and when the number of Member Firms expands beyond twenty, The AE Clearinghouse will re-evaluate these assumptions accordingly.)

For AE Risk Pool, the Standard Test for capital adequacy is determined by calculating whether the three layers of financial resources can survive the following catastrophic events simultaneously (RoPES, Chap. 5, Sec. 11):

- a one-day market move in a single contract that is 2.5x the initial margins, themselves set to exceed the extreme one-day market move from the last seven years, and
- 2. 40% of the Member Firms (with 40% of the overall open interest in that contract) suddenly default on that very day, and
- 3. 100% of the open positions of the aggregate defaulting Member Firms are complete losses in the one-day market move.

Under a simple example of this extreme adverse scenario, on November 15, 2004, five Member Firms have open positions of an aggregate 500,000 contracts of near-date Forward Rate Agreements, with those open positions fully margined at an initial margin of 42.5 bps, or \$1062.50 in initial margins (a price level beyond that of the extreme value move of 33 bps for the historical distribution of FRAs since January 2, 1998).

Each of the Member Firms have thus pre-provided \$106.25 million in initial margins to fund their positions, and have also pre-provided \$425 million in a Default Protection Facility (here at 4x the initial margins of open positions) to AE Risk Pool.

A one-day market move of 106.25 bps, or \$2656.25 in initial margins, coincides with 100% market losses by two of the five Member Firms,

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on their aggregate of 200,000 FRAs of open interest, owed exclusively to the remaining three Member Firms.

Under this example, the overall market losses of the two defaulting Member Firms are 200,000 FRAs \times \$2656.25 losses = \$531.25 million. The initial and variation margins established for these positions are 200,000 FRAs \times \$1062.50 = \$212.5 million.

\$531.25 million in losses - \$212.5 million in initial and variation margins = \$318.75 million in remaining losses. The Default Protection Facility of each of the two defaulting firms would then fund the remaining losses, on a same-day basis, in proportion to their respective contributions to those losses.

Each of the two defaulting Member Firms owe \$159.375 million in remaining losses, which is fully paid out of each of their respective \$425 million Default Protection Facilities.

The AE Clearinghouse does not need to establish an exposure ceiling for the size of the open interest of AE Risk Pool, because the Default Protection Facility provided by each Member Firm must be sized here to exceed 4x the initial margins required for any open position in any contract. (AE ROPES, Chap. 5, Sec. 11, Sec. 12)

The Member Firms of the AE Risk Pool are required to agree to a finite guarantee of clearing performance, up to but not exceeding the exhaustion levels of all of the "layers" of financial resources in AE Risk Pool for all novated contracts. The AE Risk Pool is not mutualized. (AE TCP, Art. IV, Sec. 10)

The AE Clearinghouse believes that the strength, structure, accessibility, and liquidity of the above financial resources will be sufficient to clear AE Risk Pool with integrity.

Reporting of Financial Resources: The AE Clearinghouse will fulfill its reporting obligations for any material change in its financial resources that may enhance or diminish The AE Clearinghouse's ability to provide clearing services to AE Risk Pool market participants. The AE Clearinghouse has no legal or operational impediments to accessing the required financial resources from the AE Risk Pool to fulfill its clearing obligations.

As a prudential and practical matter, The AE Clearinghouse believes that the financial resources supporting clearinghouse novation have the perfected interest, size, availability, and accessibility to satisfy all reasonably foreseeable obligations borne by a legal transfer of title to an agreement, contract, or transaction by market participants to the clearinghouse.

The CEA does not require the financial resources expressly supporting a novating clearing function to be infinite. Nor does the CEA require the financial resources expressly supporting a novating clearing function to be mutualized.

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Further, The AE Clearinghouse will ensure that the eligible contract participants acting as principal, intermediating, or intermediated trade participants, are knowledgeable and sophisticated participants in trading eligible "excluded commodities," and acknowledge in writing their accurate understanding of the finite financial resources supporting AE Risk Pool novation without mutualization.

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CORE PRINCIPLE C: PARTICIPANT AND PRODUCT ELIGIBILITY

In addressing Core Principle C, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. Member/participant admission criteria:

- 1. How admission standards for its clearing members/participants would contribute to the soundness and integrity of operations; and
- 2. Matters such as whether these criteria would be in the form of organization rules that apply to all clearing members/participants, whether different levels of membership/participation would relate to different levels of net worth, income, and creditworthiness of members/participants, and whether margin levels, position limits and other controls would vary in accordance with these levels.

2. Member/participant continuing eligibility criteria:

- 1. A program for monitoring the financial status of its members/participants; and
- 2. Whether and how the clearing organization would be able to change continuing eligibility criteria in accordance with changes in a member's/participant's financial status

3. Criteria for instruments acceptable for clearing:

- 1. The criteria, and the factors considered in establishing the criteria, for the types of agreements, contracts, or transactions it will clear; and
- 2. How those criteria take into account the different risks inherent in clearing different agreements, contracts, or transactions and how they affect maintenance of assets to support the guarantee function in varying risk environments.
- 4. The clearing function for each instrument the organization undertakes to clear.

The AE Clearinghouse has established admission and continuing eligibility standards for the market participants of the AE Risk Pool, and standards for determining the eligibility of Contracts for clearing, as required by CEA Section 5b(c)(2)(C). (AE Rules Art. II, III, IV)

As stated earlier, The AE Clearinghouse will clear only on the behalf of eligible contract participants as principal, intermediary, or, intermediated participants, executing trades via Trading Accounts at Member Firms of The AE Clearinghouse.

The AE Risk Pool has two types of market participant: a Member Firm of The AE Clearinghouse, and a Trading Account of such a Member Firm. Each Trading Account must clear AE Risk Pool trades through a Member Firm of The AE Clearinghouse. (AE Rules, Art. II, Sec.1, Art. V, Sec.3)

Member Firm Requirements

A prospective Member Firm of The AE Risk Pool must demonstrate sufficient operational capability, including adequate personnel, physical facilities, books and records, accounting systems and internal procedures, to enable it to handle cleared transactions, fulfill anticipated commitments to, and meet the operational requirements of, The AE Clearinghouse, and conform to any requirements or conditions that The AE Clearinghouse may deem necessary for its protection or for the protection of other Member Firms. This capability is assessed by The Actuarials Exchange during mock trading and mock clearing activities described in the Chapbook and other training materials. (AE TCP, Art. II, Sec. 2)

A prospective Member Firm must also satisfy minimum financial requirements. A prospective Member Firm must have sufficient financial resources to comply

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with their clearing obligations, including paying performance collateral and settlements to The AE Clearinghouse in a timely manner. (AE TCP, Art. II, Art. III)

To be admitted as a Member Firm, a person may not be subject to statutory disqualification under the CEA or other federal or state laws and must have at least six months of established, profitable business history or sufficient experienced personnel to ensure its ability to conduct its business in a responsible manner. (AE TCP Art. II, Art. III)

Member Firm applications are reviewed by the executive clearing officers of The AE Clearinghouse, who are empowered to examine the application and make inquiries, including of governmental authorities supervising the applicant, as deemed appropriate. (AE TCP, Art. II, Art. III)

Specific Admission Requirements of Member Firms and Trading Accounts

A prospective Member Firm must have an investment grade long-term credit rating from at least one nationally-recognized rating organization, and no sub-investment grade rating from any nationally-recognized rating organization, unless that prospective Member Firm is a duly-registered FCM acting solely as an intermediary to the AE Risk Pool. Any prospective Member Firm must be in compliance with standards of regulatory capital that are customary for its ongoing business. (AE Rules, Art. II, Sec. 3(i)(1))

Member Firms participating in the AE Risk Pool must be one of the following types of eligible contract participant ("ECP"), as defined in Section 1a(12) of the CEA, but with \$500 million or more in net capital assets, summarized here as: (AE Rules, Art. II, Sec. 3)

- a) a large financial institution, acting as principal or intermediary;
- b) a regulated insurance company; acting as principal or intermediary;
- c) a regulated investment company; acting as principal or intermediary;
- d) a regulated commodity pool; acting as principal or intermediary;
- e) a corporation, partnership, proprietorship, organization, or trust;
 acting as principal or intermediary;
 - f) an employee benefit plan; acting as principal only;
 - g) a government-sponsored enterprise; acting as principal only;
- h) a sovereign government, or any instrumentality, agency or department thereof, or political subdivision thereof; acting as principal only;
 - i) a broker/dealer; acting as principal or intermediary.

Trading Accounts of Member Firms must be comprised of any combination of the following types of eligible contract participant ("ECP") generally with \$10 million or more in capital assets, as defined in Section 1a(12) of the CEA, broadly summarized below as:

- a) a large financial institution, acting as principal or intermediary;
- b) a regulated insurance company; acting as principal or intermediary;
- c) a regulated investment company; acting as principal or intermediary;
- d) a regulated commodity pool; acting as principal or intermediary;
- e) a corporation, partnership, proprietorship, organization, or trust; acting as principal or intermediary;
 - f) an employee benefit plan; acting as principal only;
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- g) a government-sponsored enterprise; acting as principal only;
- h) a sovereign government, or any instrumentality, agency or department thereof, or political subdivision thereof; acting as principal only, at \$25 million;
 - i) a broker/dealer; acting as principal or intermediary.

The CEA provides that certain other Persons may be considered ECPs, but the AE Risk Pool has no provision to accept those Persons, and further, the AE Risk Pool is not required by the CEA to accept those Persons.

Ongoing Requirements for Member Firms

Member Firms may be required to submit upon request annually-audited and quarterly-unaudited financial statements, and copies of reports to appropriate regulatory authorities, and such other financial information as The AE Clearinghouse may require from time to time.

The AE Clearinghouse may also require Member Firms to conduct additional operational testing to ensure that their operational and technical capabilities are compatible with The AE Clearinghouse operational and technical systems.

Member Firms are required to notify The AE Clearinghouse upon the occurrence of certain material events, including significant decreases in working capital, business combinations or changes in control, reductions in credit rating, surveillance by other regulatory or self-regulatory organizations, and receipt of notice from regulatory authorities of noncompliance with applicable law. (AE Rules, Art. II, Sec. 3)

In the absence of direct Member Firm notification, The AE Clearinghouse may rely on external data sources on Member Firm credit events, including Bloomberg News Services, The Wall Street Journal, the Financial Times, or other leading providers of such information.

In the AE Risk Pool, when such a material event occurs to a Member Firm, The AE Clearinghouse places the Member Firm into a Distressed Member Firm category, and removes any Distressed Member Firm assets from the Clearinghouse Concentration bank account at The AE Clearinghouse payment bank, and further restricts the Member Firm to trading activities that would only close out existing open positions.

Member Firms are also required to inform The AE Clearinghouse if any Trading Account is no longer an ECP, in which case the Trading Account is restricted to trading activities that would only close out existing open positions.

Instruments Accepted For Clearing

The AE Clearinghouse will clear the following instruments:

1. OTC spot and forward Contracts for "excluded derivatives transactions" ("EDTs") of "eligible" excluded commodities, that may be executed by voice or other means of confirmation, or, by an excluded electronic

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- trading facility, as defined in Section 2d(2), between eligible contract participants acting solely as principals; and (AE Rules, Art. I, Sec. 1)(RoPES Chap. 6)
- 2. OTC spot and forward Contracts for "eligible" excluded commodities executed on an exempt board of trade, as defined in Section 1a(13), as further provided by the CFTC Rule 36.2(a)(iii)(2)(i) between any combination of eligible contract participants acting as principals, or, between eligible contract participants acting as intermediaries solely to other eligible contract participants. (AE Rules, Art. II, Sec. 2)

To this end, The AE Clearinghouse expects to provide clearing services to the AE Risk Pool for spot, forward and derivatives Contracts for interest rates, including Forward Rate Agreements, which are defined as forwards that, upon voluntary Member Firm election for subsequent clearing, may be considered cleared FRAs. (AE TCP, Art. I, Sec. 1)

The AE Clearinghouse may also clear instruments involving other "excluded derivatives transactions" for other "eligible" excluded commodities," under CFTC Rule 36.2(a). (AE TCP, Art. IV, Sec. 1).

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CORE PRINCIPLE D: RISK MANAGEMENT ***

In addressing Core Principle D, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. Use of risk analysis tools and procedures:

- 1. How the adequacy of the overall level of financial resources would be tested on an ongoing periodic basis in a variety of market conditions;
- 2. How the organization would use specific risk management tools such as stress testing and value at risk calculations; and
- 3. What contingency plans the applicant has for managing extreme market events.

2. Use of collateral:

- 1. What forms and levels of collateral would be established and collected;
- 2. How amounts would be adequate to secure prudential obligations arising from clearing transactions and, where applicable, performing as a central counterparty;
- 3. The factors considered in determining appropriate margin levels for an instrument cleared and for clearing members/participants;
- 4. The appropriateness of required or allowed forms of margin given the liquidity and related requirements of the clearing organization;
- 5. How the clearing organization would value open positions and collateral assets; and
- 6. The proposed margin collection schedule and how it would relate to changes in the value of market positions and collateral values.

3. Use of credit limits:

If systems would be implemented that would prevent members/participants and other market participants from exceeding credit limits and how they would operate.

Managing Market Risk

The AE Clearinghouse will clear only on the behalf of eligible contract participants as principal, intermediary, or, intermediated participants, executing trades via Trading Accounts at Member Firms of The AE Clearinghouse. Each Trading Account must clear AE Risk Pool trades through a Member Firm. (AE Rules, Art. II, Sec.1, Art.V, Sec.3)

A Trading Account may not establish or maintain a simultaneous long or short in any Contract. A Member Firm with multiple Trading Accounts may establish or maintain a simultaneous open long and short position for the same instrument, in any two or more respective Trading Accounts.

Performance collateral of the AE Risk Pool is defined as a required combination of initial and variation margins, paid by Member Firms on behalf of the Trading Accounts to The AE Clearinghouse. Performance collateral for all open positions is required on a "gross" basis. (AE TCP Art. IV, Sec. 16)

The AE Clearinghouse does not presently "net" or "compress" variation margins across a portfolio of Contracts within a Trading Account that otherwise may be highly correlated with each other.

One additional protection of The AE Clearinghouse is the requirement for intraday clearing price limits for financial instruments. For example, a USD 3M FRA may not exceed 200 basis points in an intraday move, from the previous settlement mark, until all of the Member Firms have satisfied their funding obligations to The AE Clearinghouse at that 200 basis point level.

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Since the Total Risk Capital and the Default Protection Facility equal 212.5 basis points in intraday FRA market movement, The AE Clearinghouse is guaranteed to possess sufficient capital to fulfill any intraday "limit up" or "limit down" FRA obligations.

Setting Initial Margins for Liquid Instruments

Performance collateral requirements for specific contracts are set at either:

- 1) the product of the largest daily market move observed during the last 7 years, multiplied by 1.25; or, alternatively,
- 2) a value no less than the 95% VaR calculated for a distribution consisting of observations for the past 7 years.

The AE Clearinghouse calculates initial margin requirements for liquid instruments by determining whether the "eligible" excluded commodity has sufficient historical data in the cash, OTC, or exchange markets over the last 7 years to allow the Chief Risk Officer to generate an appropriately robust distribution of intraday or daily price changes. (Market Risk Management, Ex. 8a) (Spreadsheet Aids)

If such an appropriately robust distribution of intraday or daily price changes can be constructed, then The AE Clearinghouse legally obtains the market data from one or more trusted market vendors, such as TickData, Bloomberg, TeleRate, or other companies under contract to The Actuarials Exchange. (Complete data of historical LIBORs, FRAs, and Eurodollars have been purchased by AE from all of these trusted market vendors.)

For example, as of November 15, 2004, the present initial margin required in the AE Risk Pool for a single lot of \$1 million notional of USD 3M LIBOR rates in a Forward Rate Agreement with a time horizon of expiration 3 months from today is 42.5 bps, or \$1065, which in this example well exceeds the 95th Value-at-Risk confidence interval for that instrument. (As of November 15, 2004, the front-month CME Eurodollar future is closest economic equivalent to the AE FRA, requiring only \$945 in initial margins, \$120 lower than the \$1065 required by the AE Risk Pool.)

As stated above, the initial margin requirement for liquid financial instruments may be alternatively set at a value no less than the 95% VaR calculated for a distribution consisting of observations for the past 7 years, but only as provided in the RoPES for that instrument.

The AE Clearinghouse represents that in no case will the initial margin requirement for any liquid financial instrument be set below the 95% VaR level, and in no case will the "intermark" clearing price limit for any liquid financial instrument be set above 95% of the sum of the initial margin requirement and default protection facility requirement.

The AE Clearinghouse may also consider creating certain Contract marketspaces whose value is comprised of an average, mixture, or offset

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of two or more reference rates of eligible excluded commodities. For example, The AE Clearinghouse may create a Contract marketspace that is comprised of a contract for difference of a long USD 3M FRA against a short EUR 3M FRA, both sharing the same value date. Under this circumstance, The AE Clearinghouse will evaluate the historical distribution of two components, making sure to preserve correlations and also to evaluate the distribution of the offset of the two instruments. The AE Clearinghouse would then establish an "intermark" clearing price limit and an initial margin requirement for the Contract.

Setting Initial Margins for Illiquid Instruments

For each prospective cleared instrument having an absence of sufficient historical data from the cash, OTC, or exchange markets, The AE Clearinghouse will establish initial margins and required funds from the default protection facility whose collective amount exceeds by 5% the "intermark" clearing price limits.

Recall that intraday and end-of-day settlement "marks" for a given cleared instrument are exclusively set by clearinghouse executive officials, who may, as provided in the RoPES for a given financial instrument, "mark to market," "mark to indication," or "mark to model," depending on liquidity circumstances.

Under AE Risk Pool Rules, The AE Clearinghouse is obligated to fulfill contract obligations only up to the difference between the price limit established for that cleared instrument and the price for the previous settlement "mark."

For example, for Cleared FRAs, the "intermark" price limit is 200 basis points above and 200 basis points below, the settlement price of the most recent "mark" whose funding requirements have been fully satisfied by all Member Firms of the AE Clearinghouse. (RoPES, Ch. 5)

There are two scheduled "marks" every trading day, and additional unscheduled "marks" may take place as well, especially during trading days of volatility. For every such "mark" whose margin requirements at The AE Clearinghouse have been met, Cleared FRAs may move an additional 200 bps up or down. (This re-set 200 bp limit is designed to be at least 5% less than the overall 212.5 bps in protection from each Member Firm in Total Risk Capital and Default Protection Facility.)

For example, until the Chinese central bank legally floats the Yuan currency and facilitates an interest-rate money market, there is not sufficient historical data in the cash, OTC, or exchange markets over the last 7 years to reliably determine a distribution of intraday or daily price changes for a "Chinese Yuan FRA."

Thus, if The AE Clearinghouse were to clear such a "Chinese Yuan FRA", it need to establish intraday price limits for the Contract that are sized less than 95% that of the combined protections of required initial margin and the required Default Protection Facility. (This 95% clearing price limit threshold is required even when the Default

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Protection Facility is set at the lowest minimum factor of 3x the initial margin requirement.)

The intraday price limits of the contract are, of course, set by The AE Clearinghouse. Assuming the lowest capital requirements possible, if a single lot of such a \$1 million notional value of an FRA of Chinese Yuan with a maturity of 3M had an arbitrary intermark price limit of 150 basis points, the combined initial margin requirement 39.47 bps) and the Default Protection Facility requirement (at 3x the initial margin requirement, or 118.42 bps) would provide coverage, which by definition, would be at least 5% higher (157.89 bps). (AE TCP Art. IV, Sec. 16)

Determining Current Performance Collateral Requirements

Each Member Firm is required to pre-provide performance collaterals before submitting a trade to any AE electronic trade facility that will be subsequently cleared. (AE TCP, Art. IV, Sec. 16 (i))

In addition, each Member Firm will be required to pay, or entitled to receive, The AE Clearinghouse variation margins reflecting changes in the intra-day and end-of-day mark-to-market value of its positions. (AE TCP, Art. IV, Sec. 17 (i)(2))

The AE Clearinghouse requires Member Firms to post variation margin in real-time on a pre-provided collateral basis. At 12 Noon and 9pm LDN time, The AE Clearinghouse provides each Member Firm with a "mark to market" report. (AE TCP, Art. IV, Sec. 17 (i); AE ROPES, Chap. 5, Sec. 8)

The "mark to market" report shows the value of the Member Firm's open positions and the amount of initial and variation margin required to be deposited by the Member Firm with respect to those positions, as well as the value of performance collateral previously deposited and any surplus or deficit above or below the amount of performance collateral then required. (AE TCP, Art. IV, Sec. 17 (i)(1-5))

If a Member Firm in Good Standing has an excess performance collateral balance in its account as of the end of any business day, it will be permitted to request the return of such excess, so long as an Event of Default (as defined below) has not occurred. A Member Firm will not be entitled to obtain a return of performance collateral as a result of intra-day margin calculations.

Valuing Current Unrealized P/L of Open Positions

The AE Clearinghouse values current unrealized p/l of open positions in real time, and determines variation margins to be settled at the two scheduled marks of 12 Noon and 9pm LDN every trading day.

The AE Risk Pool does not allow for unrealized profits to result in credits of variation margins in the Trading Account (although unrealized losses do result in debits of variation margins in that Trading Account.) As a result, The AE Clearinghouse is not vulnerable to clearing risk due to the unrealized profits of a Trading Account -- (continued to next page) --

being inappropriately withdrawn or over-leveraged for risky profit at the expense of the risk pool. (AE TCP, Art. IV, Sec. 12 (i)(3a))

Managing Credit Risk

Credit risk is monitored in real-time and greatly minimized at the AE Risk Pool, **first** by approving the credit risk of eligible contract participants acting as Member Firms and as Trading Accounts, **second** by checking for sufficient performance collateral before any submission of a new order for clearing is accepted, **third** by dynamically drawing variation margins in synchronization with the unrealized and realized p/l of a Trading Account, and **fourth** by establishing a Default Protection Facility for each Member Firm that is directly proportional to the size of the overall initial margins required for its open position. (AE ROPES, Chap. 3; AE TCP, Art.IV, Sec. 11, 14, 15, 16)

The approval and on-going monitoring of the creditworthiness of Member Firms is discussed elsewhere in this application.

The checking of sufficient performance collateral is briefly discussed below.

At the AE Risk Pool, there are two types of trade execution venues eligible for subsequent clearing: "off-exchange" venues, which are excluded derivatives transactions executed bilaterally between two counterparties, and "on-exchange" venues, which are "eligible" excluded commodities executed on an exempt board of trade.

For clearing "off-exchange" or "on-exchange" transactions, a Member Firm may have one or more Trading Accounts, but every Trading Account must, at all times, exceed the following:

- 1. A minimum account balance;
- 2. Pre-provided collaterals of **initial margins** for all current, open positions in any Contract;
- 3. Pre-provided collaterals of initial margins for the "heaviest side" of all pending, unfilled orders in any Contract;
- 4. Pre-provided collaterals of **variation margins** for all current, open positions, with unrealized or realized losses; (AE TCP Art. IV)

without drawing any funds from unrealized profits, or, from funds otherwise being withdrawn from the AE Clearinghouse. Thus the AE Risk Pool is NEVER exposed to credit risk for any inception of any open position on the exchange.

With respect to dynamic variation margining, an **Electronic Tracker** of the STP Technology Facility tracks realized and unrealized profits and losses of every Trading Account, and draws variation margins down in real time, protecting against any accumulated losses in an individual Contract marketspace that may threaten the solvency of the AE Risk Pool.

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For example, the Actuarials Exchange accepts a new order from a Trading Account ONLY after pre-reserving, in milliseconds, enough pre-provided collateral to satisfy initial margins that would be required if filled. Otherwise, the AE Risk Pool does not accept the new order. (AE TCP, Art. IV, Sec.16, 18(ii))

To get the order re-submitted and accepted, the Trading Account must "free up" enough pre-provided collateral, either by closing out a positive, unrealized position to realize gains, or, by depositing new pre-provided collateral to the AE Clearinghouse. As stated elsewhere, US dollars are currently the only acceptable pre-provided collaterals that may be deposited to the AE Risk Pool. (AE TCP, Art. IV, Sec. 17)

As discussed elsewhere, The AE Clearinghouse does not value current unrealized p/l of open positions independently of real-time variation margins, or independently of variation margins that are cash-settled at the settlement at 12 Noon and 9pm LDN every trading day. Indeed, the AE Risk Pool does not allow for unrealized profits to result in credits of variation margins in the Trading Account (although unrealized losses do result in debits of variation margins in that Trading Account.) As a result, The AE Clearinghouse is not vulnerable to clearing risk due to the unrealized profits of a Trading Account being inappropriately withdrawn or over-leveraged for risky profit at the expense of the risk pool. (AE ROPES Chap. 5, Sec. 8; AE TCP Art. IV, Sec. 11, 1, (c))

The default protection facility constitutes the "second layer" of sufficient financial resources for The AE Clearinghouse acting in the role of AE Clearinghouse to discharge its duties of clearing by traditional novation.

The final leg of credit protection is with respect to the Default Protection Facility. As stated elsewhere, each Member Firm must establish a Default Protection Facility, with the AE Clearinghouse, furnished with assets comprised of any combination of Unified Clearing Group irrevocable letters of credit drawable on a same-day basis from approved banks, USD cash and US Treasury securities deposited with, and under the possession and control of The AE Clearinghouse, collectively exceeding no less than 3x the initial margin requirement for all open positions of the Member Firm. A Member Firm's Default Protection Facility requirement must be satisfied in full before any open positions supported by such initial margins can be opened. (AE ROPES, Chap. 3)

The AE Clearinghouse takes immediate action if a Member Firm of the AE Risk Pool is discovered to be a "distressed" credit entity. The AE Clearinghouse "quarantines" the assets and open positions of such a Member Firm with distressed credit from the rest of the AE Risk Pool.

If a Member Firm has 1) been subjected to a voluntary or involuntary bankruptcy filing, 2) communicated its expectation to be subject to such a filing, 3) defaulted on obligations at another exchange or clearinghouse, 4) lost its investment-grade credit rating, 5) become insolvent, 6) lost its status as a qualified eligible contract participant, 7) lost its operational capabilities to continue

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conducting business, 8) exhibited other signs of imminent failure, 9) failed to fulfill material obligations to third parties, 10) engaged in activities that are deemed unlawful by the Chief Compliance Officer, or 11) has been late three times with required margin calls over any 12 month period, then the Member Firm is considered to be "distressed."

The trading activity of a "distressed" Member Firm is restricted to closing out existing open positions. The performance collaterals and any other assets of the "distressed" Member Firm held at The AE Clearinghouse are removed from the Clearinghouse Concentration Bank Account (where all Member Firms are normally held in common), and placed in a dedicated Distressed Member Firm Bank Account. A "distressed" Member Firm must close out all open positions at The AE Clearinghouse within 5 business days, or transfer those open positions to a Member Firm in Good Standing willing to host the distressed firm as an intermediated Trading Account. (AE TCP Art. IV, Sec. 20.)

Concentration risk at the AE Risk Pool is measured against a published exposure limit, for a single Trading Account, for a set of Trading Accounts at the same or different Member Firms, or, for a Member Firm. The exposure limit is published as a Concentration Risk threshold in a regular AE Circular. Any Trading Account or Member Firm whose exposure passes this threshold is subjected to an immediate margin call, where initial margins are increased by a specified amount.

Both The AE Clearinghouse as a DCO and AE as an exempt board of trade must abide by the anti-manipulation and anti-fraud provisions of the CEA. Although the CEA and CFTC assumes that such "eligible" excluded commodities as interest rates are NOT prone to manipulation, The AE Clearinghouse and AE will closely monitor all trading activity for signs that disproportionately concentrated positions are attempts to corner or unduly influence the prices of such "eligible" excluded commodities. (AE ROPES, Chap. 4.)

Limiting the Current Trade Guarantee

The financial protection of The AE Clearinghouse to Member Firms is strictly limited to the assets of the AE Risk Pool. If a coincident market and credit event were to create a shortfall exceeding the entire aggregate of performance collaterals (initial margin, variation margin), the Default Protection Facility, and the General Clearing Fund, the abilities of The AE Clearinghouse to fully meet that shortfall under any novated clearing function will be insufficient.

Member Firms sign their acknowledgement and acceptance that their claims and legal recourses for satisfaction are limited to AE Risk Pool assets held at The AE Clearinghouse, and that such assets are finite. (AE TCP Art. IV, Sec. 10)

In the unlikely event that the AE Risk Pool fails to prevent and mitigate a shortfall:

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- 1. For any set of AE Risk Pool Contract marketspaces (defined in the Rules of the AE Risk Pool as a marketplace where certain specified Contracts are competitively bought and sold), experiencing a shortfall due to the Failed Obligation of a Member Firm, The AE Clearinghouse shall guarantee to pay as much of the realized and unrealized profits as possible to Member Firms in Good-Standing, but only to the extent that funds are available from the performance collateral of the Failed Obligation Member Firm, the Default Protection Facility of the Failed Obligation Member Firm, and any assets of the AE Risk Pool held in the General Clearing Fund. (AE TCP Art. IV, Sec. 10)
- 2. For the complementary set of AE Risk Pool Contract marketspaces NOT experiencing a shortfall due to the Failed Obligation of a Member Firm, The AE Clearinghouse shall immediately guarantee all of the realized or unrealized profits to Member Firms in Good Standing, and immediately guarantee that such realized or unrealized profits will not be affected by any shortfall in other Contract marketspaces.

General Risk Management

The AE Clearinghouse also has the ability to manage the general risks associated with discharging the responsibilities of a DCO through the established use of a variety of accepted tools and procedures, as necessary, to:

- 1. **measure** current thresholds of acceptable market and credit exposure to open positions,
- 2. **determine** current performance collateral requirements for these thresholds of market and credit exposure,
 - 3. value current unrealized p/l of open positions,
 - 4. set current credit exposure ceilings and position limits, and
- 5. **limit** the current trade guarantee to reflect the finite financial resources that support a novated clearing function, and set intraday price limits for the intraday settlement of the novated clearing function,
- 6. **establish** proper forms of performance collateral to protect The AE Clearinghouse against undue liquidity risk.

For purposes of determining the adequacy of its financial resources and minimizing the consequences of Member Firm default, The AE Clearinghouse will perform on an ongoing basis stress testing, scenario analyses and other evaluations of its potential market, credit, and liquidity exposures by revising its margining algorithm for risk pool under the supervision Chief Risk Officer.

With respect to the margining algorithms, The AE Clearinghouse will test the underlying assumptions periodically and update the algorithms

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as necessary to reflect deviations from those assumptions. In addition, The AE Clearinghouse will perform simulations of the effects of normal and severe price fluctuations in conjunction with a broad spectrum of potential default events financial resources in light of those simulations.

Stress testing will be conducted periodically to identify and limit potential credit and liquidity exposures to Member Firms arising from extreme price movements and to ensure that The AE Clearinghouse financial resources are of adequate size and liquidity to enable it to perform its obligations, as those obligations are defined in the AE Risk Pool Rules, in the face of such an extreme price movement.

If stress testing reveals that The AE Clearinghouse resources are not sufficient, The AE Clearinghouse may require additional performance collateral for open positions, seek additional capital contributions, change performance collateral requirements or otherwise supplement the financial resources already installed at the AE Risk Pool.

The AE Clearinghouse is committed not only to the use of current risk management tools such as scenario analysis, stress testing, and value-at-risk analysis, but also to the research, development, and implementation of new risk management tools and methodologies with respect to the estimation and simulation of price movements, default risks, and other event risks.

CORE PRINCIPLE E: SETTLEMENT PROCEDURES ***

In addressing Core Principle E, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. Settlement timeframe:

- 1. Procedures for completing settlements on a timely basis during times of normal operating conditions; and
- 2. Procedures for completing settlements on a timely basis in varying market circumstances including during a period when one or more significant members/participants have defaulted.

2. Recordkeeping:

- 1. The nature and quality of the information collected concerning the flow of funds involved in clearing and settlement; and
- 2. How such information would be recorded, maintained and accessed.
- 3. **Interfaces with other clearing organizations:** How compliance with the terms and conditions of netting or offset arrangements with other clearing organizations would be met, including, among others, common banking or common clearing programs.

The AE Clearinghouse has established procedures to permit The AE Risk Pool to effect settlements on a timely basis under varying circumstances and to maintain an adequate record of the flow of funds associated with each cleared transaction.

The AE Clearinghouse uses general ledger accounting to track changes in Member Firm contributions and obligations of the AE Risk Pool, and reports these changes to the Member Firms at the end of every business day.

Transfers of funds between The AE Clearinghouse and Member Firms of the AE Risk Pool are conducted in accordance with standard interbank practices for the receipt and delivery of funds. Each Member Firm must maintain a settlement account with a bank approved by The AE Clearinghouse to and from which all cash transfers between The AE Clearinghouse and those Member Firms will be executed.

The AE Clearinghouse will establish a modern FedWire payments system with the Bank of New York under the Cash Register Plus program, which produces a detailed record of all cash transactions with respect to the various settlement accounts of Member Firms.

The AE Clearinghouse settlement and recordkeeping with Member Firms via the FedWire system at the Bank of New York has proven in the past to be highly standardized and reliable, and The AE Clearinghouse sees no reason to change this approach.

Real-Time Settlement System

All Contracts elected by Member Firms to be cleared within the AE Risk Pool that are accepted by The AE Clearinghouse are novated. Settlement is realtime if the Member Firm pre-provided collaterals already installed at the AE Risk Pool are sufficient to meet outstanding obligations. This settlement can be reported in real-time on the Electronic Tracker of the STP Technology Platform.

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The real-time settlement system is synchronized to consolidated ledger accounting taking place with every "mark-to-market" report at 12 Noon LDN and 9pm LDN every FedWire business day. FedWire settlement of outstanding obligations can take place at any time during FedWire operating hours, but is synchronized to the real-time settlement environment and to the consolidated ledger accounting system, at 12 Noon LDN and 9pm LDN every FedWire business day (Chapbook "Operating Hours Timeline" Ex. 10b)

As demonstrated elsewhere in this application, a force-settlement procedure is available to The AE Clearinghouse for exceptionally unlikely situations where Member Firms in Good-Standing experience shortfalls from the AE Risk Pool due to a Default from a Failed Obligation Member Firm, addressed by the Automated Recourse Procedure. (AE TCP Art. V)

Flow of Funds

Transfer of funds between The AE Clearinghouse and its Member Firms will be required to be conducted in accordance with standard interbank practices for the receipt and delivery of funds. As noted above, each Member Firm must maintain a Payment Bank Account with a bank approved by The AE Clearinghouse through which all cash transfers between the Member Firm and The AE Clearinghouse will be affected. (AE TCP Art. IV Sec. 5)

The AE Clearinghouse's automated clearing system will produce a detailed record of all such cash transactions between The AE Clearinghouse and the various Payment Bank Accounts of Member Firms. These records will be automatically maintained through the automated system in accordance with the procedures described below. These settlement completion notices will also be maintained in accordance with the procedures discussed below.

Interfacing With Other Clearing Organizations

The AE Clearinghouse does not presently expect to engage in netting or offset relationships with other clearing organizations.

Automated Recourse Due To Member Firm Default

Most derivatives industry practitioners are familiar with the traditional clearinghouses that support the major futures exchanges. The AE Clearinghouse structure is very different. (Figures 2-5, also Chapbook "The Recourse" Ex. 10a, 10b)

Upon a default by a Member Firm, traditional clearinghouses compensate for shortfalls by relying upon the mutualized financial resources of the non-defaulting clearing Member Firms. In contrast, The AE Clearinghouse compensates for the same shortfalls by relying upon extraordinary capital protections already furnished by the defaulter.

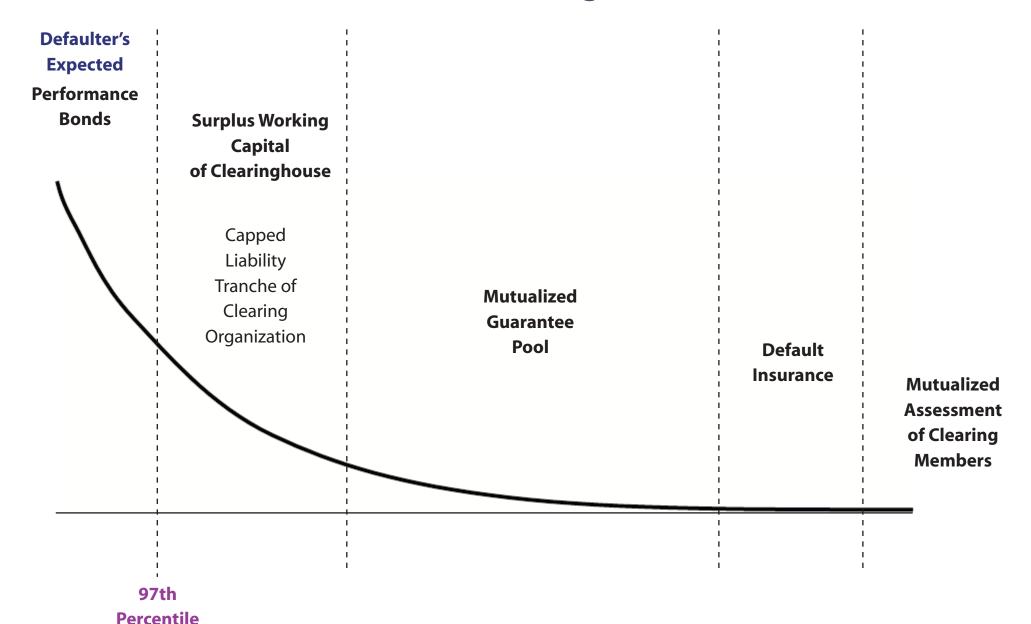
Traditional clearinghouses set their performance bond requirements to cover a probable one-day market move, typically a VaR set between the $95^{\rm th}$ and $97^{\rm th}$ percentile (confidence level) of historical market moves.

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TRADITIONAL CLEARINGHOUSE

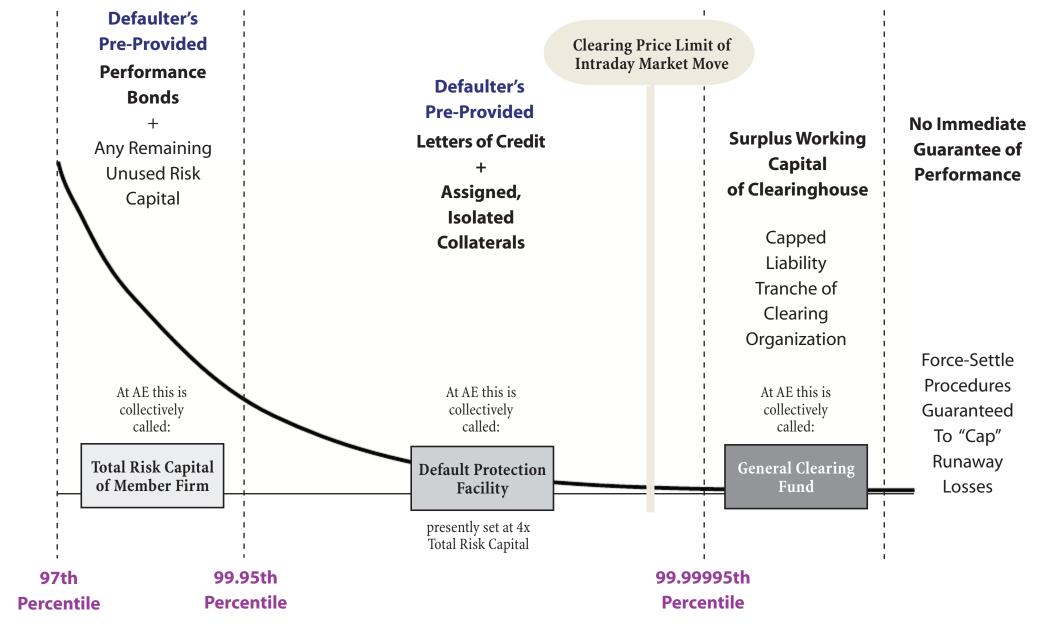


In-Possession Capital Coverage for Tail Events During Default



Æ CLEARINGHOUSE In-Possession Capital Coverage for Tail Events During Default

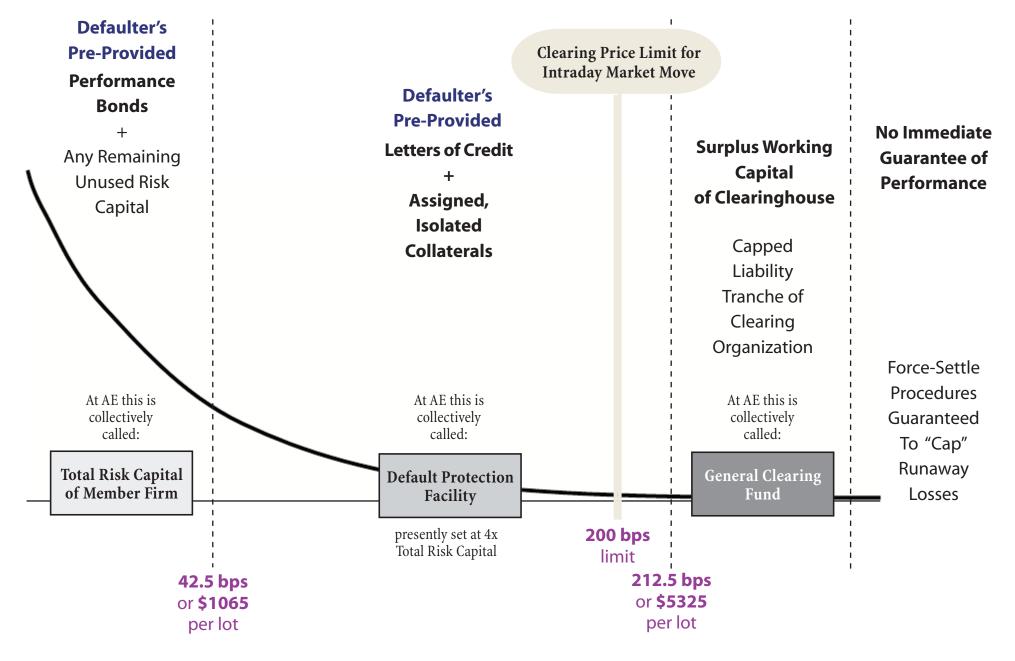




Æ CLEARINGHOUSE



In-Possession Capital Coverage for Cleared FRA Tail Events During Member Firm Default



Æ CLEARINGHOUSE Recourse Steps After Failed Obligation of Member Firm



1

Force-Net Positions and Funds

Pour all Failed Obligation Member Firm assets at AE Clearinghouse into a **single Omnibus account**

RESULT:

Maximizes Total Risk Capital of Failed Obligation Member Firm

Apply All Three Levels of Capital Protection to Provide Immediate Recovery and Subsidy

7

Total Risk Capital of Member Firm

Pre-provided collaterals from the Failed Obligation Member Firm held in the

Clearinghouse Concentration Bank Account to fund margins for open positions

Default Protection Facility

Assigned, isolated collaterals and irrevocable Letters of Credit held in a Keepsafe Bank Account to protect Member Firms in Good-Standing

General Clearing Fund

Assets of the AE Clearinghouse held in the General Clearing Fund Bank Account to protect Member Firms in Good-Standing

RESULT:

Provides fullest opportunity for 100% recovery with all excess capital applied to subsidy

3

Subsidized Force-Liquidation

Hold competitive auction of all Failed Obligation Member Firm open positions, with "tick price" subsidy

RESULT:

Provides maximum incentive to Member Firms to take all positions of Failed Obligation Member Firm

4

Force-Settlement

Leftover open positions of the Failed Obligation
Member Firm are Force-Settled
at the current "settlement mark"

RESULT:

Guarantees that any leftover open positions are closed out at prices set with latest "settlement mark"

Liquidating trades are equitably assigned on a pro rata basis to Trading Accounts holding positions opposite the defaulting Member Firm

Beyond that level of protection, financial resources are drawn from capital sources outside of the defaulter to cover the default loss. These resources are typically comprised of a pool of security deposits of all clearing participants, and in some instances, default insurance policies and/or the power to assess surviving clearing participants.

A traditional clearinghouse covers "fat tail" events coincident with a Member Firm default with mutualized loss sharing procedures affecting "innocent" Member Firms AFTER the default occurs.

At most traditional clearinghouses, how the remaining positions of the defaulter are to be liquidated or assigned to surviving clearing Member Firms, are deliberated by clearing committees, and left to the discretion of clearing officials.

In contrast, the AE Clearinghouse supplements its performance bond coverage (always at least at 95% VaR) with a substantial Default Protection Facility, provided by each clearing Member Firm. (Market Risk Management, Ex. 8a)

The AE Clearinghouse covers the same "fat tail" market event coincident with a Member Firm's default by possessing the capitalized Default Protection Facility of that Member Firm BEFORE such a default occurs. (RoPES, Ch. 3)

If an extreme "fat tail" market move coincides with a default by a Member Firm, The AE Clearinghouse immediately possesses ALL of the performance bond coverage and Default Protection Facility of the defaulting Member Firm, PLUS excess working capital of the AE Clearinghouse, and applies this capital to provide, first, maximum recovery to the realized profits of non-defaulting clearing Member Firms, and, second, if possible, full recovery and additional subsidy to liquidate (under "force-liquidation") the net positions of the defaulter in an orderly, competitive marketplace. (AE TCP Art. V)

Any remaining positions of the defaulter are then assigned (under "force-settlement") to non-defaulting clearing Member Firms in direct proportion to the open interest they hold opposite those positions. Under this circumstance, the AE Clearinghouse applies ALL of the remaining capital to fund maximum recovery to non-defaulting clearing Member Firms taking on these positions. (AE TCP Art. V)

When managing a Member Firm default, The AE Clearinghouse:

- 1. "Force Nets" the performance bonds and open positions of the defaulting Member Firm (assuming the firm has multiple trading accounts) into a single account, thereby netting risk exposures and freeing up performance bonds to extend exposure coverage.
- 2. Takes a "snapshot" of prevailing market prices, to use as an unscheduled "settlement mark" that would, in an extreme case, be used to "cap" any further "fat tail" losses;

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- 3. Closes out any residual open positions of the defaulting Member Firm at the unscheduled "settlement mark" to truncate any potential "fat tail" exposure;
- 4. Observes the relevant Contract marketspaces in which the defaulting Member Firm had an open interest, as of the last "good" settlement cycle that is, the last settlement for which ALL Member Firms last satisfied their settlement obligations;
- 5. Gives first priority to paying any realized profits owed to non-defaulting Member Firms (for such relevant product contracts that were closed out subsequent to the last good settlement cycle);
- 6. Gives second priority to paying any unrealized profits owed to non-defaulting Member Firms for open positions in the relevant product contracts, to the maximum degree possible, in the following manner:
 - a. Member Firms who voluntarily participate in the "Forced-Liquidation" of the positions of the defaulting Member Firm get trades executed at subsidized "fire sale" prices;
 - b. Bids and offers for the "fire sale" liquidation are open and competitive;
 - c. Member Firms who are involuntarily assigned trades that liquidate the residual open positions of the defaulting Member Firm, under "Force-Settlement," get trades executed at unsubsidized prices frozen at the unscheduled settlement mark, proportionate to their respective share of the open interest in the relevant contracts. (AE TCP Art. V)

Additional details regarding the settlement policies and procedures of the AE Risk Pool is available to CFTC staff to review in a Recourse Illustration and in a Chapbook as per EXHIBITS 10a and 10b.

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CORE PRINCIPLE F: TREATMENT OF FUNDS ***

TREATMENT OF FUNDS-- The applicant shall have standards and procedures designed to protect and ensure the safety of member and participant funds.

In addressing Core Principle F, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. Safe custody:

- 1. The safekeeping of funds, whether in accounts, in depositories, or with custodians, and how it would meet industry standards of safety;
- 2. Any written terms regarding the legal status of the funds and the specific conditions or prerequisites for movement of the funds; and
- 3. The extent to which the deposit of funds in accounts in depositories or with custodians would limit concentration of risk.

2. Segregation between customer and proprietary funds:

Requirements or restrictions regarding commingling customer funds with proprietary funds, obligating customer funds for any purpose other than to purchase, clear, and settle the products the clearing organization is clearing, or procedures regarding customer funds which are subject to cross-margin or similar agreements, and any other aspects of customer fund segregation.

3. Investment standards:

- 1. How customer funds would be invested consistent with high standards of safety; and
- 2. How the organization will gather and keep associated records and data regarding the details of such investments.

Safe Custody, Segregation, and Investment Standards

At the AE Risk Pool, Member Firms must be certain types of qualified eligible contract participants acting as principals or intermediaries of other eligible contract participants. As a result, The AE Clearinghouse is not required to address the safeguarding of funds obtained from Member Firm customers who are not eligible contract participants, here called "retail customers." (AE Rules, Art. II)

Nonetheless, The AE Clearinghouse guarantees that all of the funds or securities deposited to the AE Risk Pool remain the property of contributing Member Firms, subject to a security interest in favor of The AE Clearinghouse. Pursuant to AE Risk Pool Rules, The AE Clearinghouse may use such deposited funds or securities to satisfy certain realized or unrealized obligations, or to cure or mitigate a prospective Member Firm default.

Certain rules of segregation adopted to protect retail customers are not deemed applicable to certain intermediaries and clearing organizations service and the AE Risk Pool.

All of the AE Risk Pool contributions are to be held in a single bank account, called "the AE Risk Pool clearinghouse concentration account," at the Bank of New York. This bank account is exclusively dedicated to holding the funds or securities of the AE Risk Pool. (AE TCP Art. IV, Sec. II)

The AE Clearinghouse uses general ledger accounting to track changes in AE Risk Pool Member Firm contributions and obligations, and reports these changes to these Member Firms at the end of every business day. (AE TCP Art IV, Sec. 14)

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Transfers of funds between The AE Clearinghouse and Member Firms are conducted in accordance with standard interbank practices for the receipt and delivery of funds. Each Member Firm must maintain a payment bank account with a bank approved by The AE Clearinghouse, to and from which all cash transfers between Member Firms and The AE Clearinghouse will be executed.

Under an ongoing Electronic Banking Delivery Master Agreement with AE most recently renewed in 2004, The AE Clearinghouse has established a modern payments system with the Bank of New York called Cash Register Plus, which produces a detailed record of all cash transactions between The AE Clearinghouse and the various settlement accounts of Member Firms.

The AE Clearinghouse may enter into cross-margining, cross-netting or cross-offset arrangements with other DCOs and clearing organizations, upon enabling order by the CFTC. The AE Clearinghouse will ensure the safe treatment of funds in The AE Clearinghouse rules, policies, and procedures if any of these permitted arrangements are contemplated.

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CORE PRINCIPLE G: DEFAULT RULES AND PROCEDURES ***

1. Definition of default:

- 1. The events that will constitute member or participant default;
- 2. What action the organization would take upon a default and how the organization would otherwise enforce the definition of default; and
- How the organization would address situations related to but which may not
 constitute an event of default, such as failure to comply with certain rules, failure to
 maintain eligibility standards, actions taken by other regulatory bodies, or other
 events.

2. Remedial action:

The authority pursuant to which, and how, the clearing organization may take appropriate action in the event of the default of a member/participant which may include, among other things, closing out positions, replacing positions, set-off, and applying margin.

3. Process to address shortfalls:

Procedures for the prompt application of clearing organization and/or member/participant financial resources to address monetary shortfalls resulting from a default.

4. Use of cross-margin programs:

How cross-margining programs would provide for clear, fair, and efficient means of covering losses in the event of a program participant default.

5. Customer priority rule:

Rules and procedures regarding priority of customer accounts over proprietary accounts of defaulting members/participants and, where applicable, in the context of specialized margin reduction programs such as cross-margining or trading links with other exchanges.

The AE Clearinghouse has established rules, policies, and procedures designed to ensure efficient, fair and safe management of events when Member Firms become incapacitated, insolvent, or default on their obligations.

The AE Risk Pool utilizes several precise definitions that relate to the status of (i) a financially weak, incapacitated, or insolvent Member Firm, (ii) a Member Firm that has failed its obligation to make a margin call on a timely basis, and (iii) a Member Firm that has failed to satisfy obligations to the AE Risk Pool even after all The AE Clearinghouse recourses to employ Failed Obligation Member Firm resources have been exhausted.

(i) Distressed Member Firm

A Distressed Member Firm has:

- 1) been subjected to, or placed under, bankruptcy proceedings,
- 2) communicated its expectation to declare bankruptcy,
- 3) defaulted on obligations at another exchange or clearinghouse,
- 4) lost any investment-grade credit rating,
- 5) become insolvent,
- 6) lost its status as a qualified eligible contract participant,
- 7) lost its operational capabilities to continue conducting business.
- 8) failed to fulfill obligations to third parties,
- 9) engaged in activities that are deemed unlawful by the Chief Compliance Officer,
- 10) exhibited other signs of imminent failure, or
- 11) activated a Late Payment trigger three (3) times in a twelve month period, AE Clearinghouse considers the Member Firm to be in Distress. (AE TCP, Art. IV, Sec. 20; Art. V, Sec. 1, 14, 15)

A Distressed Member Firm is prevented from opening new positions in the AE Risk Pool, and is given five (5) days to close all open positions, or to transfer them to a Trading Account under the domain of another -- (continued to next page) --

Member Firm in Good Standing.

(ii) Failed Obligation Member Firm

A Failed Obligation Member Firm has failed to satisfy the outstanding performance collateral obligations of the AE Risk Pool within 2 hours of a margin call. When such a failed obligation takes place, The AE Clearinghouse must utilize the Default Protection Facility of the Failed Obligation Member Firm to cure or mitigate any and all remaining performance collateral obligations. (AE TCP, Art. V, Sec. 2)

(iii) Defaulted Member Firm

A Defaulted Member Firm is a Failed Obligation Member Firm that, even after voluntarily and involuntarily liquidating all of its open positions, applying all available performance collateral, and applying all of financial assets of the Default Protection Facility, has failed to cure or mitigate outstanding performance collateral obligations to the AE Risk Pool. (AE TCP, Art. V, Sec. 3)

Procedures for handling the default of a Member Firm of the AE Risk Pool are described in detail in Article V of AE Terms, Conditions and Procedures.

In the AE Risk Pool, every margin call has to be satisfied within 1 hour, or is considered "late," triggering an automated recourse procedure that cancels ALL pending, unfilled orders, and simultaneously freezes ALL open positions, of ALL Trading Accounts of the Member Firm, allowing ONLY voluntary liquidations of such open positions, until the margin call is satisfied.

Canceling all pending, unfilled orders usually "frees up" significant pre-reserves of initial margins of the "late payment" Member Firm, which The AE Clearinghouse uses to satisfy unpaid AE Risk pool obligations. The redundant and unused risk capital of a "late payment" Member Firm is immediately seized to cure or mitigate existing obligations.

When a "late payment" Member Firm has been late in satisfying a margin call to the AE Risk Pool for 2 hours, the Member Firm is considered to be a Failed Obligation Member Firm, triggering an automated recourse procedure that forcibly nets ALL open positions and funds of the house (proprietary) and customer Trading Accounts of a Failed Obligation Member Firm into an Omnibus account, thereby freeing up more redundant risk capital that can cure or mitigate existing Member Firm obligations.

In addition, the Default Protection Facility of a Failed Obligation Member Firm, usually held at a Keepsafe Bank Account controlled by The AE Clearinghouse, is seized on behalf of the AE Risk Pool. Like all regulated securities and futures clearinghouses, The AE Clearinghouse has had a special Unified Clearing Group Letter of Credit capability that allows ALL of a letter of credit to be utilized immediately, on demand, on an irrevocable basis. Any isolated, assigned collaterals already kept at a Keepsafe Bank Account at The AE Clearinghouse is also utilized. As presently set, this Default Protection Facility is guaranteed to be at least 4 times the size of the Total Risk Capital of the Failed Obligation Member Firm.

For transactions executed at an exempt board of trade, The AE Clearinghouse takes an exchange-wide unscheduled "snapshot" of market

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prices to determine a "mark" to which to settle possible forceliquidations and force-settlements of the open position of the Failed Obligation Member Firm.

In sum, The AE Clearinghouse applies the Total Risk Capital (all of the performance collateral) and the Default Protection Facility of the Failed Obligation Member Firm, plus any surplus of the General Clearing Fund, to stanch any shortfalls experienced by the AE Risk Pool that may otherwise result in shortfalls to Member Firms in Good Standing. These three levels of overall capital protection are used to satisfy recovery of, first, any realized profits of Member Firms in Good-Standing, and second, any unrealized profits of Member Firms in Good-Standing, as of the time of the "snapshot."

In the likely event that excess funds of the Failed Obligation Member Firm can be additionally applied to subsidize the "tick prices" of force-liquidated positions of the Failed Obligation Member Firm, The AE Clearinghouse ensures that Member Firms in Good Standing are compensated for voluntarily taking on the other side of such force-liquidated positions.

In the exceptionally unlikely event that excess funds of the Failed Obligation Member Firm CANNOT be applied to subsidize the "tick prices" of force-liquidated positions of the Failed Obligation Member Firm, the AE Risk Pool will enforce an algorithm that ensures that all of the open positions of the Failed Obligation Member Firm are force-settled against a select group of Member Firms with open positions in those Contracts.

The AE Risk Pool Rules do not presently provide for The AE Clearinghouse to enter into cross-margining, cross-netting or cross-offset arrangements with other DCOs and clearing organizations.

These default protection safeguards, taken collectively, produce a very low probability that the liquidation loss associated with a Failed Obligation by a Member Firm would not be covered by the collateral held by The AE Clearinghouse (initial margins plus the Default Protection Facility).

Further, the price limits combined with the ability of the AE Clearinghouse to Force Settle residual positions of the Failed Obligation Member Firm practically ensure that the AE Clearinghouse will always have sufficient resources to support its finite guarantee of performance as that guarantee is defined and accepted by the Member Firms.

The AE Clearinghouse believes that these measures, which are outlined in detail in the accompanying documents, are prudent and effective measures to prevent such default from occurring, as well as dealing with any default which may occur. (AE TCP Art. IV, Sec. 16, 18(ii))

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CORE PRINCIPLE H: RULE ENFORCEMENT

RULE ENFORCEMENT-- The applicant shall (i) maintain adequate arrangements and resources for the effective monitoring and enforcement of compliance with rules of the applicant and for resolution of disputes; and (ii) have the authority and ability to discipline, limit, suspend, or terminate a member's or participant's activities for violations of rules of the applicant.

In addressing Core Principle H, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. Surveillance:

Arrangements and resources for the effective monitoring of compliance with rules relating to clearing practices and financial surveillance.

2. Enforcement:

Arrangements and resources for the effective enforcement of rules and authority and ability to discipline and limit or suspend a member's/participant's activities pursuant to clear and fair standards.

3. Dispute resolution:

Where applicable, arrangements and resources for resolution of disputes between customers and members/participants, and between members/participants.

The AE Clearinghouse has adequate arrangements to monitor and enforce compliance with the AE Risk Pool rules, and to resolve disputes among Member Firms, and will have the authority and ability to discipline, limit, suspend or terminate a Member Firm's activities for violations.

Surveillance and Enforcement

The AE Clearinghouse has put into place a surveillance policy and procedure designed to detect violations of the AE Risk Pool Rules and applicable laws and regulations. The surveillance program will be conducted by The Chief Compliance Officer directing AE personnel for this purpose.

This program will also provide for the ongoing human monitoring of trading and settlement activity, human analysis of position and trading patterns and human analysis of the financial positions and creditworthiness of the Member Firms and their guarantors, if applicable. The Chief Risk Officer will be the executive primarily responsible for these activities. (Management and Staff Positions, Exhibit 7)

Monitoring and analysis will rely on data generated through The AE Clearinghouse's automated clearing system and reports required to be provided to be provided by Member Firms to The AE Clearinghouse, as well as through a variety of other information sources, including information obtained from regulatory and self-regulatory organizations and other clearing organizations with which The AE Clearinghouse may enter into information-sharing arrangements, and data obtained by The AE Clearinghouse from on-site visits to Member Firms. (AE TCP Art. I, Sec. 1(iii))

Pursuant to Article VII of the AE Rules, the Authorized Compliance Officer of The AE Clearinghouse is responsible for enforcement for the AE Risk Pool Rules. Violations of AE Rules may result in censure, fines, suspension, or expulsion of the Member Firm, or may limit any activities thereof at Actuarials Exchange or The AE Clearinghouse.
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Such violations may include, but are not limited to:

- (i) any breach or violation of the AE Rules, AE TCP, RoPES, or Agreements between Member Firms and AE, or The AE Clearinghouse
- (ii) any failure of a Member Firm to comply with applicable orders or directions of AE or The AE Clearinghouse
- (iii) any failure or delay to carry out its obligations under (i) or (ii) above.

Any such violations are communicated to the CEO of both AE and the CEO of The AE Clearinghouse, and after the formal complaint procedure found in Article VII has been followed, will lead to Arbitration under the provisions set forth in Article VII.

Dispute Resolution

Article VIII of the AE Rules deals with Arbitration as a result of a disciplinary investigation outlined in Article VII of the AE Rules. Submission of a dispute to arbitration will preclude a party to the dispute from prosecuting of commencing any action against the other party in any court of law or other alternative dispute resolution body based upon the dispute or any matter arising out of or in connection therewith.

CORE PRINCIPLE I: SYSTEM FUNCTIONALITY AND SAFEGUARDS ***

In addressing Core Principle I, applicants and registered derivatives clearing organizations may describe or otherwise document:

1. Oversight/risk analysis program:

- 1. Whether a program addresses appropriate principles and procedures for the oversight of automated systems to ensure that its clearing systems function properly and have adequate capacity and security. The Commission believes that the guidelines issued by the International Organization of Securities Commissions (IOSCO) in 1990 and adopted by the Commission on November 21, 1990 (55 FR 48670), as supplemented in October 2000, are appropriate guidelines for an automated clearing system to apply.
- 2. Emergency procedures and a plan for disaster recovery; and
- 3. Periodic testing of back-up facilities and ability to provide timely processing, clearing, and settlement of transactions.

2. Appropriate periodic objective system reviews/testing:

- 1. Any program for the periodic objective testing and review of the system, including tests conducted and results; and
- 2. Confirmation that such testing and review would be performed or assessed by a qualified independent professional.

As stated elsewhere in the application, AE and The AE Clearinghouse own and control an STP Technology Facility that allows for real-time monitoring and margining of submitted orders, open positions, and realized or unrealized profits and losses related to the clearing function, as applied to excluded derivatives transactions and trades executed on an exempt board of trade. (AE TCP Art.IV, Sec.18)

Proper Functioning of System

AE and The AE Clearinghouse have fully tested the proper functioning of the STP Technology Facility in a variety of production, demonstration, test, and development system environments, with various functions residing on a stand-alone machine, a multi-tiered client/server network of machines, and a cluster of such client/server networks, where enduser access is enabled by internet access, or via a private-line connection.

AE has placed its administrative and production environments on data network centers residing at Savvis, Inc. Savvis is a leading provider to the financial sector of network communications systems and hardware, including server hardware, operating systems, database, network, and security management, and other related support for the systems supporting The AE Clearinghouse's clearing function and electronic communications with Member Firms and Participants.

The clearing software of the STP Technology Facility will be used in determining scheduled performance collateral requirements, monitoring position limits, providing risk management, and the matching of Member Firm open positions for the purposes of cash-settlement or delivery-settlement.

In coordination with AE, The AE Clearinghouse will maintain a program of independent oversight and risk analysis to ensure that its automated

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systems function properly and have adequate capacity and security. In addition, The AE Clearinghouse will, through its arrangements with AE and Savvis, maintain emergency procedures and a plan for disaster recovery and will periodically test backup facilities sufficient to ensure daily processing, clearing and settlement of procedures, as described in more detail below.

The relevant service agreements relating to Clearing Technology are available to CFTC staff to review as per EXHIBIT 15.

Oversight/Risk Analysis For Automated Systems

The AE Clearinghouse's computer systems have been designed to provide a robust platform that will deliver 99.9% system availability in accordance with those guidelines developed by the Technical Committee of the International Organization of Securities Commissions, which are applicable to a clearing rather than a trading system.

In particular:

- (i) The system is designed in a manner that is equitable for all Member Firms. As discussed above, The AE Clearinghouse will have one class of Member Firm, and each Member Firm will have equal access to The AE Clearinghouse automated clearing system;
- (ii) The AE Clearinghouse, AE and Savvis have established separate procedures for removing system vulnerabilities (including risks of unauthorized access, internal failures, attacks and natural catastrophes), as discussed in more detail below;
- (iii) The AE Clearinghouse and AE have established guidelines and training to ensure the competence, integrity and authority of system users and to ensure that system users are adequately supervised, and that system access is not arbitrarily denied. Under the standard form of Member Firm Agreement, Member Firms will be required to designate authorized system users and to take steps to maintain the security of passwords and otherwise prevent unauthorized access;
- (iv) The AE Clearinghouse will conduct surveillance of the system on a timely basis. As discussed in more detail elsewhere in this document, The AE Clearinghouse will have access through its automated systems to information concerning cleared transactions and other Member Firm clearing activity, in compliance with its obligations under the CEA; and
- (v) Users will be adequately informed of the risks of using the system. The Rules contain detailed provisions and disclaimers concerning the status of AE's and The AE Clearinghouse's electronic systems and the limitations on AE's and The AE Clearinghouse's liability to Member Firms for system failures.

The AE Clearinghouse will clear excluded derivatives transactions of "eligible" excluded commodities under the CEA.

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As a result, The AE Clearinghouse believes that an electronic trading facility for such transactions, is not required by the CEA to:

- 1. electronically store CFTC requirements and regulations to be observed on any buy and sell transaction, or;
- electronically determine the validity of each transaction as per CFTC requirements and regulations otherwise applicable in regulated markets, or;
- electronically determine the validity of bids and offers, before those bids and offers are provided to any competitive market in a Contract, or;
- electronically establish regulatory constraints so to approve only those bids and offers in compliance with such constraints, or;
- 5. electronically establish any type of predetermined compliance criteria to detect certain practices or patterns;

PROVIDED that such electronic trading facilities are in full compliance with all applicable provisions of the CEA, and are in full compliance to any applicable Rules for such electronic trade facilities established by the CFTC.

If any of these trades executed by a trading participant on an electronic trade facility are, upon election by a trading participant, subsequently submitted to The AE Clearinghouse for clearing, The AE Clearinghouse will at that time apply all relevant CFTC regulations for clearing such unregulated OTC spot, forward, swap, and derivative trades with careful human oversight and intervention, as prudent compliance practices dictate. (ROPES, Ch. 6)

Physical Environment and Functional Capabilities

Member Firms and other Trading Participants will access the STP Technology Facility through a secure internet or private-line connection. In addition to other communications with the system, Member Firms may, as discussed in more detail elsewhere in this document, submit confirmations for transactions to The AE Clearinghouse via this internet or private-line connection.

For trades executed outside of the STP Technology Facility, The AE Clearinghouse has not implemented alternative "straight-through-processing" arrangements for Member Firms.

The relevant document detailing the technology infrastructure of the exchange and clearinghouse is available to CFTC staff to review as per EXHIBIT 12.

Security

The AE Clearinghouse and AE have established security procedures that prevent non-authorized personnel from accessing The AE Clearinghouse system. Every Member Firm and Trading Account has a limited number of authorized support personnel who may access The AE Clearinghouse

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system, via an encrypted user ID and password on a closed remote-access environment, preventing "sniffers" or "hackers" from eavesdropping on messages flowing between The AE Clearinghouse system and Member Firms. (Savvis Master Agreement, Ex. 11a)

Technical Support

The AE Clearinghouse will be responsible for providing front-line customer support for The AE Clearinghouse's automated systems. As noted above, AE will have its own information technology support personnel in addition to being able to draw on the resources of Savvis, as necessary.

The AE Clearinghouse personnel will be on call during all relevant times to respond in the first instance to Member Firm or Trading Account problems with The AE Clearinghouse system. The AE Clearinghouse staff will be responsible for determining whether any such problem can be autonomously addressed and solved by The AE Clearinghouse personnel or whether the matter should be referred to Savvis for further assistance.

Emergency Procedures and Disaster Recovery

Savvis maintains disaster recovery systems and processes in relation to its hosting locations using varied methodologies. Many of the technologies, processes and procedures in place are built with the framework of Disaster Recovery Institute recommendations.

As a Savvis customer, AE and The AE Clearinghouse have the option of making full or partial use of all these products and services within their hosted environment to enhance their overall stance in business continuance readiness. (In addition to these existing internal operational support technologies and processes, Savvis also has a wide range of consultative services that are offered to The AE Clearinghouse to further assist in the process of business continuance planning and disaster recovery testing.)

To that end, The Actuarials Exchange has completed plans for a fail-safe redundant architecture for the hosted electronic trade facility, so that certain failures of service result in a "hot-linked" start-up of a "replicant" electronic trade facility in milliseconds. Such a redundant architecture will allow the real-time variation margins now tracked by The AE Clearinghouse to continue without interruption.

As an additional fall-back measure, The AE Clearinghouse may use its "Off-Exchange Clearing Facility" to facilitate emergency trades during on-hours of the Exchange for the Member Firms. This facility is available at all times for submitting FRAs for trades that are subsequently matched and cleared after the exempt board of trade hours are completed, but can be made available for such matching and clearing during exempt board of trade hours as well.

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If the singly fail-safe or doubly fail-safe architectures of the hosted electronic trade facility nonetheless fail, and terminate trade activity among market participants, The AE Clearinghouse has the power to suspend clearing of further contracts, agreements, and transactions, until such time as the AE Risk Pool market participants are prudently able to re-commence trading.

The relevant documents detailing the Disaster Recovery Plans of both the clearinghouse and the Network Service Provider is available to CFTC staff to review as per EXHIBIT 11a.

Testing

The AE Clearinghouse clearing system has already been fully tested by AE and officials of The AE Clearinghouse for internal acceptance and external evaluation purposes. Over 150 daily "builds" of 105 configurations of the STP Technology Facility and the related clearing system over the latter half of 2004 have resulted in zero defects, as determined by the standard software automatic build-reports used for fail-safe evaluations.

Each of the components of The AE Clearinghouse clearing system is unit-tested for breakdowns or problems every day.

Each Member Firm is further required to independently certify acceptance of any changes in the clearing environment.

Certain financial trading associations that engage in independent testing of such clearing systems may also provide certification to the Member Firms, at the request of those Member Firms.

The Application Systems Provider that houses all automated systems is Savvis, whose facility is located in Elk Grove Village, Illinois. Savvis routinely meets all IOSCO standards. AE, The AE Clearinghouse, and Savvis will continue to contract with each other to ensure an oversight and risk analysis program to ensure adequate capacity and security, and will continue to maintain emergency procedures and a plan for disaster recovery, and will periodically test backup facilities.

To that end, The AE Clearinghouse believes that Savvis satisfactorily meets applicable Core principles for facility stability, including those involving physical security, environmental controls, network management, capacity, and systems testing.

Upon appointment, the physical plant of Savvis is also available for an on-site review by CFTC staff.

The next two pages are embedded exhibits designed to show two of the twenty internal tests that take place daily on behalf of the AE Risk Pool.

The first exhibit shows a "test script" that replicates thousands of times on every business day that an end-user may wish to access a Trading Account.

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The Second exhibit shows a "test script" that replicates thousands of times on every business day the GUI "mouse" events that would take place on the execution platform.

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Title: Multiple trading client logons using the same user

Test Case ID: 005

TC Creator: Name Withheld

Created On: 11/1/04

Abstract Groups: Basic Client, Logon

Physical Groups: Startup

Relevant For Versions: All

Overview

This test case is meant to verify that the same user can not simultaneously log onto more than one trading client at a time.

Execution Details

Tester Name Name Withheld

Execution Identifier 1

Precursor Test Case: None

Steps

Step#	Task	Result
1	Execute instruction group 1, 'Trading Client Startup 1'	Pass / Fail
2	Log into a different trading machine using that same account	Pass / Fail
3	Start the trading client	Pass / Fail
4	Verify that the second trading client that was started tells the user that they may already be logged in and that the trading client then exits without any other errors	Pass / Fail

Tester Comments

Access is considered to be secure from the perspective of preventing multiple access to the same UserID

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Title: Basic Order Entry

Test Case ID:

TC Creator: Name Withheld

Created On: 11/1/04

Abstract Groups: Basic Client, Order Entry

Physical Groups: Order Ticket, Pending Orders, DOM

Relevant For Versions: All

Overview

COMMENT: This test case is meant to verify that a user can enter an order for clearing and then see that order in the Pending Orders section of their Order Book and in the DOM.

Execution Details

Execution Identifier 1

Precursor Test Case ID: None

Steps		
Step#	Task	Result
1	Execute instruction group 1, 'Trading Client Startup 1'	Pass / Fail
2	Click Start > User Preferences > Market Orientation, and select Expiry Date	Pass / Fail
3	Click Start > Depth of Market, and open a DOM window	Pass / Fail
4	Select 'USD' in the top left drop-down of the DOM window	Pass / Fail
5	Select '3M' in the top right drop-down of the DOM window	Pass / Fail
6	Select 'LIBOR Dailys' in the next drop-down	Pass / Fail
7	Select the first Expiry date in the DOM which has no bids or asks	Pass / Fail
8	In the Order Ticket, select the same 'USD', '3M', 'LIBOR Dailys' and	Pass / Fail
	Expiry Date as is selected in the DOM.	
9	Click 'Sell' in the Order Ticket	Pass / Fail
10	Click the '100' button in the Order Ticket	Pass / Fail
11	Enter a price of '1.5' in the Order Ticket	Pass / Fail
12	Click the 'Limit Order' button in the Order Ticket	Pass / Fail
13	Verify that there is a message at the bottom of the Order Ticket which says:	Pass / Fail
	'Sell 100 lots USD 3M expiring on <the date="" used="" you=""> at 1.500 received'.</the>	
14	Verify that the order is shown in the DOM	Pass / Fail
15	Click on the 'Refresh' button of the Order Book	Pass / Fail
16	Click on the 'Pending Orders' tab of the Order Book	Pass / Fail
17	Verify that the order is shown in the 'Pending Orders' page of the Order	Pass / Fail

Tester Comments

Book.

OTC Trades successfully matched and are pending for election to clear at The AE Clearinghouse

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CORE PRINCIPLE J: REPORTING

In addressing Core Principle J, applicants and registered derivatives clearing organizations may describe or otherwise document:

- Information available to or generated by the clearing organization that will be made routinely available to the Commission, upon request and/or as appropriate, to enable the Commission to perform properly its oversight function, including information regarding counterparties and their positions, stress test results, internal governance, legal proceedings, and other clearing activities:
- 2. Information the clearing organization will make available to the Commission on a non-routine basis and the circumstances which would trigger such action;
- 3. The information the organization intends to make routinely available to members/participants and/or the general public; and
- 4. Provision of information:
 - 1. The manner in which all relevant routine or non-routine information will be provided to the Commission, whether by electronic or other means; and
 - 2. The manner in which any information will be made available to members/participants and/or the general public.

The AE Clearinghouse will provide to the Commission on request all information necessary for the Commission to conduct its oversight function of The AE Clearinghouse under the CEA with respect to The AE Clearinghouse's activities. (AE Rules, Art. III, IV, Sec. 1)

In addition, The AE Clearinghouse will release on a daily basis to Member Firms certain information that is not specifically linked to the trading activity of an individual Member Firm, such as aggregate traded volume of cleared or guaranteed Contracts, aggregate open and closed positions, performance collateral requirements for Contracts, and other aggregate trading data.

The AE Clearinghouse's automated systems will produce a daily data file, available to the Commission upon request, which will contain the following information for each Contract admitted for novated clearing: the relevant economic terms of the Contract (including the underlying commodity, type of transaction and term), the aggregate open long and short positions, the total quantity bought and sold or transferred, the notional quantity of the underlying lot, the high, low and closing mark-to-market value of the Contract during the trading day and, when relevant, the final settlement price.

The AE Clearinghouse will also make available to the Commission, on request, information as to the identity of the Member Firms and Participants entitled to submit Contracts for clearing, results of stress testing and other risks analyses, disciplinary and other legal proceedings and other similar information.

Appropriate information concerning the financial condition of The AE Clearinghouse will also be made available to Member Firms on a quarterly basis. As noted above, The AE Clearinghouse will provide to all Member Firms notice of suspensions of any Member Firm and certain other events.

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CORE PRINCIPLE K: RECORDKEEPING

In addressing Core Principle K, applicants and registered derivatives clearing organizations may describe or otherwise document:

- The different activities related to the entity as a clearing organization for which it
 must maintain records; and
- How the entity would satisfy the performance standards of Commission regulation 1.31 (17 CFR 1.31), reserved in this part 39 and applicable to derivatives clearing organizations, including:
 - What "full" or "complete" would encompass with respect to each type of book or record that would be maintained;
 - 2. The form and manner in which books or records would be compiled and maintained with respect to each type of activity for which such books or records would be kept;
 - 3. Confirmation that books and records would be open to inspection by any representative of the Commission or of the U.S. Department of Justice;
 - 4. How long books and records would be readily available and how they would be made readily available during the first two years; and
 - 5. How long books and records would be maintained (and confirmation that, in any event, they would be maintained for at least five years).

In accordance with the Core Principles, The AE Clearinghouse will maintain records of all activities related to its business as a DCO in a form and manner acceptable to the Commission for a period of five years.

In particular, The AE Clearinghouse has created a record of a daily clearing report, called a Mark-To-Market Report, with respect to each Member Firm for each business day, detailing the Contracts recently submitted for clearance by or on behalf of that Member Firm, the close out, transfer, expiration or settlement of, or delivery under, Contracts for the account of the Member Firm, any adjustment in that Member Firm's positions by the Corporation, and the incurrence of any charges, fees or expenses by the Member Firm, including clearing fees. (AE TCP Art. IV, Sec. 15, 18)

The AE Clearinghouse will also keep a record of all funds or other property deposited, including records as to amounts invested in acceptable securities.

All settlement and other payments through Member Firms Settlement Accounts are automatically captured in The AE Clearinghouse records. As required by its Rules, The AE Clearinghouse will maintain written records of suspensions of Member Firms, late payments, failed obligations, or defaults by Member Firms, as well as disciplinary activities and arbitration proceedings.

The AE Clearinghouse will comply with the requirements of CFTC Rule 1.31 with respect to the maintenance of these records. In accordance with the CEA and Rule 1.31, records will be maintained for at least five years through electronic storage media.

During the first two years, in addition to being stored off-line in a secure electronic format, all required records will be available on-line through The AE Clearinghouse automated system and so will be readily available for download or inspection. Backups of these records

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will be stored on accessible computer media and then express delivered to separate locations near Chicago, New York City, and Houston, on a daily basis.

After two years, records will be stored only in a secure electronic format off-line through its data center provider, which is providing independent technical support for The AE Clearinghouse's system.

In either case, all records will be at all times immediately available for inspection by representatives for the Commission, as required by the CEA.

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CORE PRINCIPLE L: PUBLIC INFORMATION

PUBLIC INFORMATION-- The applicant shall make information concerning the rules and operating procedures governing the clearing and settlement systems (including default procedures) available to market participants.

In addressing Core Principle L, applicants and registered derivatives clearing organizations may describe or otherwise document:

Disclosure of information regarding rules and operating procedures governing clearing and settlement systems:

- 1. Which rules and operating procedures governing clearing and settlement systems should be disclosed to the public, to whom they would be disclosed, and how they would be disclosed;
- 2. What other information would be available regarding the operation, purpose and effect of the clearing organization's rules;
- 3. How members/participants may become familiar with such procedures before participating in operations; and
- 4. How members/participants will be informed of their specific rights and obligations preceding a default and upon a default, and of the specific rights, options and obligations of the clearing organization preceding and upon the member's/participant's default.

The AE Clearinghouse Member Firms and Trading Accounts are limited to certain types of qualified eligible contract participants. The AE Clearinghouse will distribute relevant clearing data to those ECPs and to the CFTC on a timely basis, but does not anticipate disseminating clearing data to the public.

The AE Clearinghouse will provide to Member Firms and Trading Accounts the rules and operating procedures governing settlement and default procedures. Member Firms will be required to specifically acknowledge their receipt and review of such rules and operating procedures under the Member Firm Agreement to be executed by each Member Firm. (AE Rules, Art. III, Sec. 1)

Member Firms will be made aware of new clearing functions or facilities and rule changes via postings on a website, electronic mail, or other forms of disseminated written communication. (Numerous communications of proposed changes in clearing rules have already been shared among prospective Member Firms during 2004.)

The AE Clearinghouse is committed to fairness and transparency in terms of its enforcements of AE Risk Pool rules. Accordingly, any person that meets the basic requirements to be a Member Firm will have the opportunity to examine all The AE Clearinghouse documents pertaining to the risk pool, before joining.

The Actuarials Exchange has established a training program at The AE Clearinghouse for Member Firms addressing the STP Technology Facility. The AE Clearinghouse is also prepared to provide training on an on-site and off-site basis to Member Firms in connection with its clearing services.

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CORE PRINCIPLE M: INFORMATION SHARING

INFORMATION SHARING-- The applicant shall (i) enter into and abide by the terms of all appropriate and applicable domestic and international information-sharing agreements; and (ii) use relevant information obtained from the agreements in carrying out the clearing organization's risk management program.

In addressing Core Principle M, applicants and registered derivatives clearing organizations may describe or otherwise document:

- Applicable appropriate domestic and international information-sharing agreements and arrangements including the different types of domestic and international information-sharing arrangements, both formal and informal, which the clearing organization views as appropriate and applicable to its operations.
- 2. **How information obtained from information-sharing arrangements** would be used to carry out risk management and surveillance programs:
 - How information obtained from any information-sharing arrangements would be used to further the objectives of the clearing organization's risk management program and any of its surveillance programs including financial surveillance and continuing eligibility of its members/participants;
 - 2. How accurate information is expected to be obtained and the mechanisms or procedures which would make timely use and application of all information; and
 - The types of information expected to be shared and how that information would be shared.

The AE Clearinghouse is prepared to enter into and abide by the terms of all appropriate and applicable domestic and international information-sharing agreements and to use relevant information obtained from such agreements in carrying out its risk management program.

Although The AE Clearinghouse has not yet entered into any information-sharing arrangements, it is authorized to share information pursuant to such arrangements with other relevant clearing organizations to monitor and assure the ability of Member Firms to perform their obligations to The AE Clearinghouse, and is in the process of exploring potential arrangements with several clearing organizations or associations of clearing organizations.

In particular The AE Clearinghouse expects to enter into arrangements whereby it would share with other clearing organizations aggregate "pay and collect" information indicating the magnitude of daily variation (maintenance) margin payments made by common clearing Member Firms.

In addition, The AE Clearinghouse envisions joining one or more of the associations of clearing facilities and other interested parties that have developed to facilitate coordinated surveillance between commodities, securities, and regulated futures exchanges and clearing organizations.

One such entity is The Intermarket Financial Surveillance Group, which consists of commodities, securities, and options exchanges, and representatives from the Commission, the Securities and Exchange Commission (the "SEC"), the National Futures Association, and the National Association of Securities Dealers. This group meets three times a year to discuss matters regarding clearing of their respective groups of Member Firms.

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Another such entity is The Clearing Organization and Clearing Bank Roundtable, which is comprised of representatives of securities, options, and futures clearinghouses, the banking community, the Federal Reserve Board, the SEC, and the Commission. This group meets to discuss issues affecting financial solvency, including capital required of clearing organizations, credit risk in mark-to-marking operations, and the implications of 24-hour trading.

An additional group that assists in the evaluation of the financial integrity of common Member Firms is The Unified Clearing Group, which consists of representatives from securities, options, and futures clearinghouses.

The AE Clearinghouse will advise the Commission of its entry into information-sharing arrangements with other clearing organizations or such groups or associations, on a timely basis.

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CORE PRINCIPLE N: ANTI-TRUST CONSIDERATIONS

ANTITRUST CONSIDERATIONS--Unless appropriate to achieve the purposes of this Act, the derivatives clearing organization shall avoid (i) adopting any rule or taking any action that results in any unreasonable restraint of trade; or (ii) imposing any material anticompetitive burden on trading on the contract market.

Pursuant to section 5b(c)(3) of the Act, a registered derivatives clearing organization or an entity seeking registration as a derivatives clearing organization may request that the Commission issue an **order** concerning whether a rule or practice of the organization is the least anticompetitive means of achieving the objectives, purposes, and policies of the Act. The Commission intends to apply section 15(b) of the Act to its consideration of issues under this core principle in a manner consistent with that previously applied to contract markets.

In accordance with Sections 5b(c)(2)(N) and 15 of the CEA, The AE Clearinghouse agrees to avoid (i) adopting any rule or taking any action that results in any unreasonable restraint of trade or (ii) imposing any material anticompetitive burden on trading in the relevant markets for cleared Contracts, unless such action is appropriate to achieve the purposes of the CEA.

The AE Clearinghouse believes that the open and transparent clearing structure described above and in the attached exhibits will not create any anticompetitive burden or restraint on trading in interest credit rates, and, by reducing counterparty credit risks in those markets, may well enhance the efficiency and competitiveness of such trading.

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CONCLUSION AND REQUEST FOR REGISTRATION

Based on the foregoing information and the information contained in the appendices attached hereto, The AE Clearinghouse believes that it is eligible to establish registration as a DCO, and that its proposed restricted activities in that capacity satisfy the applicable Core Principles set forth in Section 5b(c)(2) of the CEA.

The AE Clearinghouse respectfully requests that the Commission issue an order granting The AE Clearinghouse registration as a DCO, restricted to providing clearing services to certain types of qualified eligible contract participants (ECPs), engaged in trading either:

- c. OTC contracts, defined by the CEA as excluded derivatives transactions; or
- d. exempt board of trade contracts, at The Actuarials Exchange,

where all such contracts are cash-settled, and deemed by the CFTC to be "eligible" excluded commodities, under CFTC Rule 36.2.

The AE Clearinghouse asks that it be further directed by the CFTC (as part of its registration order) not to expand clearing services beyond the above parameters, until The AE Clearinghouse applies for, and receives, an enabling order to that specific effect from the CFTC.

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